View Of The World
Vol. 1
1893

Das.
Librarian
Uttarpara Joykrishna Public Library
Govt. of West Bengal



M. W. Craig delin. J. Burke

Published [illegible]

PREFACE.

IN the acquisition of knowledge, not less than in procuring the necessaries and conveniencies of life, we are united to our fellow men, by various degrees of dependance. An infant, deprived of the benefits of society, will either soon perish, or, if, as in a few instances it has occurred, he should, by some strange interposition of Providence, arrive at more mature years, will be found to be only a mere savage, naked and speechless, resembling other wild animals in the perfection of their senses, and in their aversion to mankind. Yet though it is evident, that without education, no one would have made the least progress in any department of literature, the obligation to the assistance of others is peculiarly apparent with regard to general history; for while the mathematician obtains his science from comparing his ideas, and the experimental philosopher his information from the evidence of his senses, the general historian derives the value of his labours from the credibility of the authorities by which he is supported. We shall therefore enumerate, in alphabetical order, the principal works by which we have been furnished with materials, or assisted in ascertaining or illustrating facts.

Mr. Adam's Lectures on Natural Philosophy deserve the warmest commendation, as being equally adapted to the improvement of the head and of the heart. Such is the classic purity of Mr. Addison's style, and such the permanency of the objects to which his attention was directed, that his Travels in Italy are still read with entertainment and profit. The great abilities and extensive learning of the gentlemen who compose the Asiatic Society have procured for their researches a just celebrity. Bingley's Animal Biography has furnished several interesting anecdotes. Blair's Lectures on the Belles Lettres have contributed their aid in tracing the history of literature. Of Bonnycastle's Introduction to Astronomy, and Mrs. Bryan's Lectures on the same subject, it is sufficient to observe, that the former excels in the originality of ideas, and the latter in the elegance of expression. We have examined Bryant's Mythology, without adopting every part of his system. We are under considerable obligation to Bruce's Travels in Abyssinia. The excellencies and defects of Buffon are very generally known. The lively descriptions of nature which proceeded from his pencil, poorly compensate for his indirect attacks on the principles of natural and revealed religion. Busching's Geography, though tedious, from a minuteness of detail, is a valuable store-house of topographical information. Of Cæsar and Tacitus it would be presumptuous to give any character. Coote's History of England, though inferior to Hume's in elegance, is far superior in impartiality. Coxe's Travels through Poland, Russia, Sweden, and Denmark, afford very satisfactory information concerning each of these countries. Du Halde's description of China is a work of acknowledged

excellence. In the Encyclopedia Britannica every branch of universal knowledge is subservient to the interests of religion and virtue. Eutropius and Florus have been found useful in ascertaining of facts. We have followed Forster's Voyages and Discoveries in the North, in treating of the geography of the middle ages. The various character of Gibbon, his extensive intelligence, his magnificent periods, and his disguised hatred to the Christian religion, are well known to the public. The Historical Compendium of Goldsmith has been serviceable in compiling the history of the Roman empire. Dr. Gregory's Economy of Nature has afforded considerable assistance to the Introductory part of this work. Nor must our acknowledgments of the late editions of Guthrie's Geography be omitted; editions, which are rendered more valuable by the spirit of moderation with which the account of recent transactions are recorded. Henry's History of Great Britain, though not written on such a plan as to render it highly entertaining, affords much information respecting the progress of society in our native country. Of the life of Nadir Shah, by sir William Jones, it is unnecessary to say more than to mention the name of that distinguished scholar. Kirwan's Treatises on Mineralogy and Geology are superior to our praise. That portion of the writings of Livy which remains, makes us regret that we are prevented from reading the whole History of the Roman Republic, as recorded by his inimitable pen. Maurice's Antient and Modern Histories of Hindostan have afforded us considerable entertainment and assistance. Milner's History of the Church of Christ is particularly valuable for his account of the Waldenses and other early reformers; and that of Mosheim for his impartial and critical discrimination of the opinions of different sects. The earl of Oxford's Collection of Voyages and Travels contains a number of productions, of different degrees of merit, but some of them curious. The reputation of Pinkerton's Geography is deservedly high. Pontopidan's Natural History of Norway is the work of a diligent observer of nature, whom some will esteem too credulous as to marvellous stories. Radcliff's Travels in Sweden has some merit. Russel's History of Modern Europe is highly entertaining and instructive; it would be agreeable if the ingenious author continued it down to the present eventful times, and, by a slight alteration of some exceptionable passages, render it a safer companion for youth. We have in our description of the Chinese empire availed ourselves of what assistance might be derived from Sir George Staunton's embassy to that country. Colonel Symes has the uncommon happiness of introducing to the knowledge of the public a populous and highly civilized empire, with which before they were but slightly acquainted. Townson's Travels in Hungary, though especially devoted to mineralogical purposes, contain very correct and copious information relative to the present state of that part of Europe. The Transactions of the different Missionary Societies inform us of the various success of a number of benevolent men, who have sacrificed every comfort, that they might carry the benefits of civilization and religion to the most barbarous regions. The Travels of the celebrated atheist Volney into Egypt and Syria have considerable merit; his known character will necessarily put the reader on his guard as to some of his remarks. Whiston's Lectures on Astronomy have assisted us in describing the phenomena of the planets. Winterbotham's America contains information concerning that quarter of the world, well digested and excellently arranged. Wraxall's Travels in the North of Europe derive considerable interest from their being undertaken at a time when the late unfortunate queen of Denmark and the celebrated naturalist Linneus were living.

In selecting from this mass of materials, we have constantly kept two objects in

view: the first has been to compress as much information as possible within our limits; the second to suffer nothing to appear, which might injure the moral or religious principles of the most inexperienced reader. How far we have succeeded, it is not our province to determine: in one respect the work has been necessarily imperfect. Events have succeeded so rapidly to each other in the political world, so many discoveries have been made in science, so many voyages and travels have been performed, and so many praise-worthy designs have been carried on by the friends of the human species, that we should have had no other alternative, than either to submit a jejune and unsatisfactory account of the most interesting facts, an account which must have chiefly rested on the authority of newspapers, or to wait till more respectable information could be received, though we might be obliged, by this delay, to present it in another form to the public. We have, therefore, in contemplation, to publish, early in the year 1808, a General History of the World, from the termination of the late war, as nearly as possible to the present times. In this work, which will be comprised within about ten sixpenny numbers, we shall notice particularly whatever may be most interesting in modern discoveries, while we shall register every very important event which may have occurred in the political transactions of nations. Should this prove acceptable to the public, we shall probably publish, early in each year, a concise annual register, which will afford the most recent information on all the before-mentioned subjects, and prevent the present edition of the work from being superceded by any future improvements.

VIEW OF THE WORLD.

INTRODUCTION.

Preparatory View of the World.

CHAPTER I.

Astronomy.——*Introductory remarks---Apparent diurnal revolutions of the heavens---Referred to the rotation of the earth on its own axis---The sun---His apparent annual motion---Signs of the zodiac---The planets, inferior and superior---Newtonian system---Relative distances of the planets---Parallax of the sun---Georgium Sidus---Ceres---Pallas----Secondary planets---Lunar Phases---Laws of the motion of the satellites---Eclipses---Lunar---mountains---Habitableness of the planets—Comets, their motion, nature, &c.---Fixed stars, their number and magnitude---Newton's and Herschell's system of the universe---Reflections.*

THE world is both an extensive and a fertile field. The knowledge of the relations it sustains, of the elements of which it is composed, of the vegetables with which it is furnished, of the numerous tribes of animals by whom it is inhabited, and especially of its most distinguished possessors, the busy race of men, with their successive revolutions in language, in manners, in government, in religion, in the constitution of their bodies, and the disposition of their minds, comprehends an immense variety of information. Much of this treasure is unfortunately lost for ever. The most antient records are generally scanty and fabulous; the steps by which nations advanced to maturity are usually unknown; and of some of the greatest natural commotions which ever agitated the terrestrial globe, nothing can now be discovered but their remaining effects. This want of materials contracts the reward of the inquirer, but rather increases than diminishes his labour. If the complete history of the universal nature was extant, persevering industry might reduce it to a compendium; but to discover clearly the facts which are concealed by the veil of allegorical fiction, to supply by happy conjecture the want of authentic evidence, and to unite the scattered fragments of truth which might be thus brought to light, so as to form them into one perfect and harmonious system, is a task which must prove too arduous for the most transcendant human abilities. Enough may, however, still be collected that has escaped the ravages of time to produce a rich supply of entertainment and instruction: we must, to the various difficulties we have to encounter, oppose

utest precautions in our power; we must content ourselves within the limits of real knowledge, and rather choose to confess our ignorance than give to mere opinions the authority of facts; we must seek to arrange our ideas in the most easy order, and give the reader such intimation of our method as may most contribute to facilitate his improvement. As connection and distinction are each of them useful to the memory, we shall endeavour to avail ourselves of the assistance of both. It is our wish that each chapter should form one distinct dissertation; that so many of those should be collected into the same book as treat of subjects which are united by a natural affinity; and, finally, that the books should so follow each other, that the mind may be conducted without any rapid transition, through the whole extent of our present undertaking. The object of our introduction is to exhibit general views of the world, without descending to its political divisions. The first of these views we shall in this chapter place before the eye of the reader: it is that of the earth, as a planet, connected by certain established laws to the other bodies which constitute the universe.

Our attention must now be directed to the heavens, that immense blue concave sphere which every where surrounds the terrestrial globe. In this the sun, moon, planets, and fixed stars seem to be situated, and are for that reason denominated celestial bodies. That point of the heavens which is directly over our heads is the zenith; that, which, if the world were transparent, would be seen beneath our feet the nadir; and a circle placed at equal distance from each of these the rational horizon. The elevation of any celestial body above this circle is called its altitude. Every circle which divides the heavens into two equal hemispheres is called a great circle; such is the horizon, and such is every circle which passes through both the zenith and nadir. Every great circle is divided into 360 degrees, and subdivided into minutes, 60 of which constitute a degree. All the celestial luminaries describe an apparent revolution in the space of 24 hours. The sun, moon, planets, and most of the fixed stars are observed by every one to rise and set, and though some constellations continue at all times above the horizon, they are perceived to revolve round an immoveable point near the tail of the little bear. This imaginary point is called the north pole, opposite to which is another denominated the south pole. Midway between them is the equinoctial circle which distinguishes the northern from the southern hemisphere.

Whether this diurnal motion be really performed by the heavens, or only an appearance produced by the rotation of the earth on its own axis, is a question which was formerly the subject of much dispute, but concerning which most thinking people are at this day perfectly agreed. The evidence of our senses would persuade us of the reality of the motion of the heavens, had we not several strong reasons to suspect that their testimony is in this instance delusive. For, first, if we suppose that the earth revolves round its axis, and all the other bodies of the universe at rest, the same phenomena will in consequence be exhibited as are every day offered to our observation. As when we sail down a smooth stream our own progress is no otherwise perceived than by observing how the neighbouring objects are continually receding from us. Secondly, The supposition of this celestial revolution puts all nature to an unnecessary labour, as

it makes globes, many thousand times greater than the terrestrial, and many millions of miles distant from it, to be hurried round it with an inconceivable rapidity, in order to accomplish a purpose as completely obtained by the gradual rotation of this diminutive world. Thirdly, the moon, and several of the planets, not to mention the sun, turn round each of them on its own axis, so that were we fix our station on any of these, we should perceive the heavens describing a circuit about that globe on which we were situated; but the position of their poles, and the space of time in which they complete their movements, would at each removal be found to differ materially. We should have the same evidence that the whole starry sphere revolved round the moon in 29 days, or round Jupiter in nine hours 52 minutes, as we now have that they perform that revolution from which our days and nights derive their existence. The poles of these planets would be found to differ widely from ours, so much so, that the same stars which appear to the inhabitants of the earth to be partakers of no sensible motion, would be seen by us, if stationed at Venus, to describe a circle of the greatest possible dimensions. Knowing that it is utterly impossible that the same revolution should be performed round different centres, and in different times, we should become convinced that the evidence of our senses is not always to be admitted without cautious examination. We should discover no cause why this earth in particular should be the centre of such a mighty revolution, and at length rest satisfied with the conclusion of the learned, that each of these worlds, by revolving round its axis, procures to its own respective inhabitants, the grateful vicissitudes of darkness and light.

The source from which all the bodies in this part of the universe derive their light and heat is the sun. To the naked eye he appears all over equally luminous, but through a telescope, of even moderate powers, some parts look brighter, and others darker than the rest of his disk. The dark spots are not endowed with any permanency, nor are they at all regular in their shape, magnitude, number, or in the time of their appearance or continuance. One was observed by Hevelius to rise and vanish in 16 or 17 hours; nor have any been observed to continue more than 60 or 70 days. Those that are formed gradually are gradually dispersed, and those that arise suddenly are usually suddenly dissolved. When a spot disappears, that part where it was generally becomes brighter than the rest of the sun, and continues so for several days: on the other hand the bright parts sometimes turn to spots. The nature and formation of these spots have occasioned among the learned much uncertain debate; but as they seldom change their place on the sun's surface, they discover, what otherwise would not have been known, that the sun is a globe, and performs a rotation round his own axis in 25 days, 15 hours, 10 minutes.

Besides this rotation which the sun actually performs, and his apparent diurnal motion, which has been already accounted for, there is also an annual circuit which he seems to describe, and to which we are indebted for the variety of our seasons. The path in which he appears to journey is called the ecliptic, and intersects the equinoctial at two opposite points, stiled the vernal and autumnal equinoxes. These points of the ecliptic which are most remote from the equinoctial are denominated the summer and winter sol-

stices, or the tropics of cancer and capricorn; their distance from the equinoctial is about $23\frac{1}{2}$ degrees. The deviation of the sun to the north or south of that circle is termed his declination.

The ecliptic is divided into twelve signs, which are denominated from so many constellations situated in that part of the heavens through which this circle is drawn: it is also subdivided into degrees and minutes. The names and characters of these signs, the months to which they correspond, the days when the sun passes from one sign to another, the time of the equinoxes and of the solstices are all to be seen at one view by inspecting the following table:

SUMMER SIGNS

Spring.			Summer.		
♈ Aries the ram	March 20 April 20	Vernal Equinox	♋ Cancer the crab	June 21 July 23	Summer Solstice
♉ Taurus the bull	April 20 May 21		♌ Leo the lion	July 23 Aug. 23	
♊ Gemini the twins	May 21 June 21		♍ Virgo the virgin	Aug. 23 Sept. 23	

WINTER SIGNS

Autumn.			Winter.		
♎ Libra the balance	Sept. 23 Oct. 23	Autumnal Equinox	♑ Capricorn the goat	Dec. 20 Jan. 19	Winter Solstice
♏ Scorpio the Scorpion	Oct. 23 Nov. 22		♒ Aquarius the water bearer	Jan. 19 Feb. 18	
♐ Sagittarius the archer	Nov. 22 Dec. 21		♓ Pisces the fish	Feb. 18 March 20	

As the Chaldean shepherds are undoubtedly to be numbered among the most early cultivators of astronomy, it cannot be thought wonderful that they should be referred to as the authors of the names and characters by which the signs of the zodiac are distinguished. Aries and Taurus correspond with those months of the year when their flocks and herds were increased by the addition of their young. Gemini, for a similar reason, was antiently characterized by the kids. Cancer represents the retrograde movement of the sun, when, having arrived at the summer solstice, he directs his journey towards the equinoctial line. The raging heat of July was compared to the fury of a lion. The virgin with the sheaf of corn afforded an easy and elegant cymbol of harvest and gleaning. The equality of days and nights about the autumnal equinox is well represented by Libra the balance. The sickly season of leaf falling was compared to the sting of the

Scorpion, an insect peculiarly dreadful in the warmer climate. Sagittarius which was originally designed for a hunter mounted on horseback, and armed with a bow, denoted that part of the year which was more especially devoted to the chace. As the goat delights to climb the rocks and mountains, it aptly represented the sun when ascending from the winter solstice. The whole circle was completed by the water bearer and the fishes, which indicated the continual rains that occurred in that part of the world during the months of January and February. The reasons here assigned for the names of the signs are not to be considered as fully ascertained, but as the result of the most probable conjecture. It may with more certainty be affirmed that the character of Libra is of more modern date than those of the other eleven, as the stars of which it is composed were formerly denominated the Scorpion's claws. This circumstance explains the reason of these signs being named the signs of the zodiac, or of the animals, as before the invention of the name and character of Libra, every one of them was supposed to represent something possessed of animal life.

The annual revolution to which we are indebted for our seasons, has been the occasion of a dispute nearly similar to that which concerns the diurnal motion of the earth. In both instances the first suggestion of our senses is opposed by the more deliberate decision of our reason. The sun appears to change his place among the fixed stars, but this is easily accounted for by supposing that we view him from different positions. The superiority of his magnitude to that of the earth, renders it more probable that the earth should be carried round the sun than that the sun should be carried round the earth; and this opinion will be abundantly confirmed when we have contemplated the planetary motion, and examined the laws by which they are regulated.

Some philosophers have divided the animal creation into three distinct gradations of beings: the first extending from the elephant to the mite, comprehends every different species visible to the naked eye. To the second class are referred all that have been discovered by glasses: and to the third, those which, though entirely invisible, are for probable reasons supposed to exist. The same distinction is applicable to the celestial bodies, whether fixed stars, comets, or planets. The planets visible to the naked eye are five: Mercury, Venus, Mars, Jupiter, and Saturn. Mercury has a very small apparent diameter, but a remarkably bright white light. Venus is the most beautiful of the planets, and Mars is distinguished by a red hue. Jupiter shines with a bright white light, and Saturn with a pale faint one. The planets which have been discovered by the telescope are three; Georgium Sidus, Ceres, and Pallas. How many other planets may exist in our system is a question impossible to be answered; but as three have been discovered in less than 30 years, it is probable that our catalogue will at length be amply enlarged. The orbits of the planets do not exactly coincide with the ecliptic, but are, however, comprehended within the zodiac or circle of animals, a large belt extending about ten degrees on each side of the sun's path.

The zodiac is not only divided by the signs of the ecliptic, but by meridian lines, imagined to proceed through every part of this belt to the poles of the ecliptic. These meridian lines serve to ascertain the longitude both of the planets and of the other celestial

bodies, which is always coited from the first meridian of Aries: the latitude of a planet, as well as that of a fixed sar, is its distance north or south from the ecliptic. Any circle which has every part of it circumference at equal distance from the ecliptic is called a parallel of latitude. The eccentric place of a planet is that situation in the heavens which it appears to occupy as seen from the earth. The positions of the planets relative to each other are calle their aspects; these are principally three, the conjunction, the opposition, and the quaile. The conjunction takes place when two planets have the same longitude; the oposition, when they appear in opposite situations; and the quartile, when their meridias cut each other at right angles.

Having premised thus mch, that our reasoning might be better understood, let us now resume our enquiry to disover the centre of our system. If the earth were possessed of that important station, we should behold the planets moving regularly round us, and describing circular orbits; wereas we now perceive them to be sometimes stationary, sometimes receding backwad, and only, during certain intervals, journeying forward according to the order of the igns. Hence, therefore, we derive a conclusive argument that the earth is not the cerre of the planetary system. Where then does this centre exist? To decide this queson let us first examine the phenomena of Mercury and Venus, and then raise our attenion to Mars, Jupiter, and Saturn.

The most remarkable penomena of the inferior planets are the following: First, They never come to a square with the sun, mnch less to an opposition to him, and in the mean while that they depart fom the sun, sometimes to the east, sometimes to the west, their greatest distance from hi never amounts to two whole signs, Mercury being carried from him never further than he space of 28 degrees, and Venus never exceeding the interval of 48 degrees. Second In consequence of their continuing so near the sun, their periodical times, in which the go over the ecliptic, are altogether equal, and are measured by his annual motion, so tht the Sun, Venus, and Mercury, if their apparent motions be stated at the interval of miny years, will be found to go over the zodiac in an equal space of time. Third, Although the periodical times of Venus and Mercury are so exactly equal to the tropical year yet if we look at those periodical times of Venus, whi are from one situation of the sn to the same again, they will be found much longer th the periodical times of Mercuy. Fourth, Each of these planets, as it occupies diffe ent positions with regard to the sun exhibits a variety of phases resembling those of t moon: this variety of appearances must necessarily result from that side which is e posed to the sun, and enlightened by his rays, being sometimes more and sometimes le turned towards us. Fifth, Their apparent diameter varies according to their differen aspects with the sun, decreasing as they depart from him to the east, or are returning towards him, till they have arrived at their superior conjunction, and afterwards increasing continually as they depart from him to the west, and as they are again returning towards him, till they arrive at their inferior conjunction: this change is more observable in Venus than in Mercury. Sixth, The bodies of each of these planets are sometimes, though very seldom, observed to be interposed betwixt the sun and the earth in the form of dark spots in the sun. From these phenomena we may safely conclude that Mercury and Ve-

nus are situated between us and the sun, that they have each of them a distinct and proper motion round that luminary, and lastly, that the orbit of Mercury is of narrower dimensions than that of Venus, and consequently inclosed within the limits of the latter. Thus we have discovered the centre of at least one part of the planetary system.

Mars, Jupiter, and Saturn have the following remarkable phenomena: First, They have all possible aspects with the sun, and are frequently seen in opposition to him. Second, Mars performs his circuit round the heavens a great deal sooner than Jupiter, and Jupiter a great deal sooner than Saturn. Third, They do not in their different aspects with the sun exhibit the same variety of phases as the moon, but only appear a little gibbous at the time of quartile. Fourth, They seem far greater in their opposition than in their conjunction with the sun. Fifth, Each of the two last mentioned changes are more observable in Mars than in Jupiter, and in Jupiter than in Saturn. From an attention to these circumstances, with the addition of the most exact observations on the curviture of the orbits of the superior planets, it has been concluded by philosophers that Mars, Jupiter, and Saturn are situated at a greater distance than we are from the sun, that each of them has a proper motion round that luminary; and lastly, that the orbit of Jupiter encircles that of Mars, but is itself encircled by the orbit of Saturn.

As it now appears that the sun is the centre of the planet's circuits, and their inhabitants perceive the sun to be carried round them in the same manner as he appears to journey round us, it does not seem to be a very hazardous conjecture that this earth should be added to the number of the planets, and supposed the agent of the annual revolution. It is not, however, necessary to content ourselves with this analogical reasoning when a variety of arguments stand ready for our assistance. We shall choose a middle path, and that we may neither leave the reader dissatisfied with the scarcity of our proofs, nor weary his attention by too great a number of them, select one more which we think of a convincing nature, and then pass on to the consideration of the mighty laws by which the universe is regulated.

Mars, it is well known, performs his journey over the Zodiac in about 686 days. At the same time we know, that he has a very swift retrograde motion whenever he comes in opposition to the sun: this opposition to the sun can arise from nothing else than the interposition of this earth between Mars and the Sun. On the supposition that this world is in motion, such an interposition ought to take place as often as a body which performs a revolution in a year could overtake one that performs a similar revolution in 686 days. The time required for this purpose is two years and 49 days, which is found by observation to be exactly the period which elapses from the middle of one regress of Mars to the middle of another. Similar arguments might be deduced from Jupiter and Saturn, but that which, more than all things, confirms the doctrine of the earth's motion, is Newton's discovery of the laws of gravitation. Before the time of Sir Isaac Newton no attempt had been made with success to develope the laws of nature, and ascertain by what second causes the universe is kept in existence, and the various bodies of which it is composed made to co-operate so fitly with one another. Imagination had indeed given birth to many systems unsupported by fact; but to proceed pa-

diently through a long train of mathematical reasoning till the harmony of the spheres was thoroughly understood was an office allotted to none but the illustrious prince of modern philosophers. This design of his existence he assiduously laboured to accomplish, not only by treating of material nature, but by teaching us to look through nature up to Nature's God.

The Newtonian system of philosophy depends on three propositions, which are easily demonstrated.

First, That every body set in motion in an unresisting medium will for ever continue to move on in a straight line unless it receives some contrary impulse. This power is denominated the centrifugal force.

Second, That all bodies have a tendency to attract each other, and that in proportion to the quantity of matter of which they are composed. This tendency is, when it concerns the earth called gravity, in the sun, attraction, and in the planets, the centripetal force.

Third, That the reaction of all bodies is exactly equal to their action, so that while a greater body attracts a less one, it does likewise gravitate towards it with a force exactly equal to that which attraets it.

In consequence of the first of these laws the planets have a constant tendency to fly off in straight lines, since it is proved by the regularity of their periods that they meet with no considerable resistance in the medium in which they revolve. Did only the second law exist they would all be drawn to the sun, and there immediately be dissolved by his heat; but as both of these laws exist together, they are gradually drawn from a right line in the exact proportion that their centripetal and centrifugal forces bear to each other. Where these are equal, the revolving body describes a circle, but where they are unequal, an ellipsis or an oblong figure. The different planets have for this reason, elliptical orbits, and the excess by which any one of these ellipsis differs from a circle is called its excentricity. By the third law of motion the sun gravitate towards the planets, so that they do not in fact perform their revolutions round him, but round a centre of gravity placed at a small distance from the centre of the sun. The strength of the centripetal power is found to decrease in a duplicate proportion to the distance from the sun. This proportion may be explained in the following manner:

Suppose several distances to bear to each other the proportion of the numbers 1, 2, 3, 4, 5, that is, let the second distance to double the first; the third three times, the fourth four times, and the fifth five times as great as the first. Multiply each of these numbers by itself, and the products inverted will respectively express the proportion which the centripetal power in each of the following distances bears to the power at the first distance; for in the second distance, which is double the first, the centripetal power will be one fourth part only of the power of the first distance; at the third distance the power will only be one ninth of the first power; at the fourth distance the power will be only one sixteenth; and at the fifth, only one twenty-fifth of the first power.

As it is only by this centripetal power that the planets are brought out of their natural rectilinear course, it is not wonderful that the length of their periods should be

proportioned to the weakness of the centripetal power by which they are influenced. The times of the annual revolutions of the different planets are found to bear, in every instance, the above mentioned proportion to the longer axis of the orbit of each planet. The excess of the longer above the shorter axis of an orbit is denominated its eccentricity, and may be ascertained by carefully observing the different velocities of a planet's motion. It therefore only remains to discover the planet's periodical times, and this is done by observing them when they have no latitude. They are then undoubtedly on the ecliptic, and by carefully remarking how long it is before they are seen the third time in a similar situation, their periods may be known pretty exactly.

We shall now place before the view of the reader the relative distances of each of the planets, as discovered by this reasoning, and confirmed by many observations. Let the mean distance of the earth from the sun in parts be stated at 100,000, then the mean distances of each of the planets will be agreeable to the following proportions: Mercury 38,710; Venus 72,333, Mars 152,369, Jupiter 520,096, and Saturn 964,006.

Our way is now cleared to proceed to some general explanation of one of the noblest labours of astronomy, the discovery of the distance, in miles, of the sun from our earth, and from each of the planets. It is usual in this place to annex a diagram, and perhaps, to persons possessed of some mathematical knowledge, this may be the best method of illustration, we shall however in this instance depart from the beaten road, and in the place of a diagram submit the following remarks:

I. The same fixed object, when viewed from different points, appears in different positions relative to those objects which are situated near it. A very little observation will convince any one of this truth. The steeple, that from one station seems to be joined to a neighbouring wood, appears considerably removed from it when viewed from another situation.

II. If two observers be stationed in different points, and each of them observes the same object, lines drawn from the eye of each observer will meet at the object observed, and consequently make an angle.

III. This angle will be the same under which the space between the two observers would appear to a third observer stationed at that point to which the observation of the two first had been directed.

IV. If therefore two observers, ninety degrees distant from each other, looked at any celestial body, the above-mentioned angle would in this case be the same under which the semi-diameter of the earth would appear to an observer placed on that celestial body. This angle under which the semi-diameter of the earth would appear to an observer on any celestial body, is denominated the diurnal parallax, or the horizontal parallax of that celestial body. The nearer the object observed be to the observers stationed at any given distance from each other, the greater will be the angle in question: the horizontal parallax of a near celestial body will, therefore, be greater than that of one that is more remote. Thus the parallax of Mars is greater than that of the sun, but the parallax of Venus than that of Mars.

V. As the relative distances of the planets' orbits have been already determined, as

well as the degrees of their respective eccentricities, it is only necessary to measure one of these relative distances in order to ascertain the distances, in miles, of all the planets from the earth, from each other, and from the sun.

VI. Since it is, therefore, indifferent which of these distances be measured, it is natural to suppose that the parallax of Mars and Venus should be sought in preference to those of more remote planets. That of Mars has been sought by comparing his distance from one of the fixed stars, as seen from the centre of the earth; or from a place to which the planet is vertically compared, with his distance from the same, when viewed from a part of the earth 90 degrees distant from the former. But the transits of Venus in 1761, and 1769, when she passed over the sun's disk, in the manner described in the sixth phenomena of the inferior planets, where considered as affording such a favourable opportunity for deciding this question so important to science, that the great Dr. Hally took considerable pains to leave such instructions to those astronomers who should be living at the time of the transits, as might enable them to make their observations with the greatest success. It was for this purpose chiefly necessary to note exactly the moments when the planet appeared to immerge into the sun, and emerge out of him, but these it was found impossible to determine with the desired exactness. So much has, however, been effected by this and other methods, as to furnish a pretty certain data from which to draw those conclusions which are found in our table.

The distances of the sun and planets being in any manner found, it is quite easy to infer their magnitude, from comparing the angle under which they appear, with the distance at which they are placed. The length of their days and nights, and the position of their poles, are determined by means of certain spots which are seen on their surfaces by the assistance of the telescope. The density of a celestial body is ascertained by observing the power with which it operates on other bodies at given distances, it being constantly observed that the power which a body possesses of attracting others, corresponds with the quantity of matter of which it is composed. The quantity of matter compared with the magnitude will then easily discover the density. It is for that reason easy to determine with certainty the density of the sun, the earth, Jupiter, and Saturn, because they have other bodies on which they very powerfully act; but that of Mercury, Venus, and Mars, is supplied by probable conjecture.

Most of the remarks on those planets which were known to the antients are equally applicable to those which have been more recently discovered: we shall, therefore, only compile some brief history of their discovery, and for other particulars refer the reader to our table.

The Georgium Sidus was first observed by Dr. Herschel, on the 13th of March, 1781, near the foot of Castor, and his attention was excited by its steady light. On applying an higher magnifying power to his telescope, it appeared manifestly to increase in diameter, and two days after he observed that its place was changed. From these circumstances he concluded that it was a comet, and sent an account of it as such to the Astronomer Royal, which was very soon spread all over Europe. It was not long, however, before it was known, especially by the English astronomers, to be a planet. The cir-

cumstances which led to this discovery were its vicinity to the ecliptic, the direction of its motion, and its being nearly stationary at the time, in such a manner as corresponds with the like appearances of the other planets. The French astronoiners, however, still imagined it to be a comet, although it had not that faint train of light which usually accompanies these bodies, nor would its successive appearances correspond with such an hypothesis; so that they were at last obliged to own that it went round the sun in an orbit nearly circular. Its motion was first computed on this principle by Mr. Lexel, Professor of Astronomy at St. Petersburgh, who shewed that a circular orbit, whose radius is about 19 times the distance of the earth from the sun, would agree very well with all the observations which had been made during the year 1781. On the first of December that year, it was in opposition with the sun, whence one of its stations was certainly determined. In the mean time, however, as astronomers were every where engaged in making observations on the same, it occurred to some that it might possibly have been observed before, though not known to be a planet. Mr. Bode, of Berlin, who had just published a work containing all the catalogues of zodiacal stars which had appeared, was induced, by the observations which had been already made on the new planet, to consult these catalogues in order to discover whether any star marked by one astronomer, and omitted by another, might not be the new planet in question. In the course of this enquiry he found, that the star No. 964, of Mayer's catalogue, had been unobserved by others, and only once by Mr Mayer himself, so that no motion could have been perceived by him. On this Mr. Bode immediately directed his telescope to that part of the heavens where he might expect to find the star marked in Mayer's catalogue, but without success. At the same time, by the calculations already made concerning the new planet, he discovered that its apparent place, in the year 1756, ought to have been that of Mayer's star, and this was one of the years in which he was busied in his observations; and on further enquiry it was found, that the star 964 had been discovered by Mr. Mayer, on the 15th of September, 1756: so that it is now generally believed that the star No. 964 of Mayer's catalogue was the new planet of Herschel. Before the end of the year 1802, it was found that the angular motion of the planet was increasing, which showed that it was not moving in a circle, but in an eccentric orbit, and was approaching towards the sun. Astronomers, therefore, began to investigate the inequality of this angular heliocentric motion, in order to discover the form and position of the elipsis described. This was a very difficult task, as the small inequality of motion showed that the orbit was nearly circular, and the arch already described was no more than one fiftieth part of the whole circumference. It was, however, by no means easy, from the variation of curvature discoverablo in this small arch, to determine to what part of the circumference it belonged; though Professor Robinson is of opinion that the supposition of its being the star 964 of Mayer's catalogue renders the calculation easy. On this supposition, its motion has been calculated by several astronomers, as well as by Mr. Robinson himself. He observes, however, that if we do not admit the identity of these stars, near half a century must elapse before we can determine the elements of this planet's motion with a precision equal to that of the others.

The planet Ceres was discovered in the year 1801, by Piozzi, a celebrated Italian astronomer, who gave it the name of Ceres Ferdinande, in honour of the king of Naples. This discovery was no sooner announced than it awakened the attention of the learned. Dr. Olbers, at Bremen, began to examine with great accuracy all the small stars in the wing of Virgo, with a view of ascertaining their several positions, in order that he might the more readily determine the situation of the planet. On the 28th of March, 1802, while he was observing the twentieth star of Virgo, near which he had seen the Ceres in the month of January, he was surprised to see near this star, which is of the sixth magnitude, another small one of the seventh. Knowing that it was not there at the time of his first observations, he hastened to ascertain its position; but during the two hours in which he he was employed in making observations he perceived that it had changed its place. The two succeeding nights affording him ample means of determining its motions, which he found at the rate of 10' per day. As soon as he had made public this interesting observation, astronomers took the earliest opportunity of attending to this new star, and of calculating its orbit. Dr. Gaus, an able geometrician of Brunswick, and Citizen Burchard, a French astronomer, have employed themselves on this subject with great assiduity and success.

Dr. Herschel has calculated the magnitude of both these two most recently discovered planets, and found it to be extremely diminutive. He has given them the denomination of asteroides, a name denoting a species of celestial bodies, which move in orbits either of little or considerable eccentricity round the sun, the plane of which may be inclined to the ecliptic in any angle whatever. Their motion may be direct or retrograde, and they may, or may not, have considerable atmospheres, very small comas, disks, or nuclei.

Many other planetary bodies may probably belong to our system, though they have hitherto escaped observations. To all these the sun is a centre of attraction, and an inexhausted fountain of light and heat. As his direct rays can, however, illuminate but one side of any of these bodies at a time, the author of nature has judged it proper, in his wisdom, to furnish several of the planets with certain attendants that occasionally supply, in some degree, the deficiency of solar light. These attendant bodies are stiled secondary planets, satellites, or moons. Of these Jupiter has four, Saturn seven, the Georgium Sidus six, and our earth one faithful companion, that agreeably mitigates the darkness of the night. The satellites of Jupiter, Saturn, and the Georgium Sidus, are visible only by means of the telescope, which renders it probable that many similar bodies may exist, though not at present observed by astronomers. The moon is so little remote from our globe that it frequently passes before the planets and fixed stars, but never admits of any of these between itself and the eye of the spectator. Its distance is ascertained by finding its parallax, and the other particulars mentioned in our table, by similar methods as have been already described. The distances of the other satellites from their primaries are judged of by observing their apparent distances; and their real magnitudes, by comparing their apparent magnitudes with those of their primaries.

All the secondary planets are subject to the same laws of motion, and exhibit similar

phenomena, so that when the reader has understood the theory of the moon, he will have become acquainted with that of each of the others.

The moon is an opaque globe like the earth, and shines only by reflecting the light of the sun; therefore whilst that half of her which is towards the sun is enlightened, the other side must be dark and invisible. Hence she disappears at her conjunction when she comes between us and the sun, because her dark side is then towards us. When she comes to her first octant, or has gone one eighth part of her orbit from her conjunction, a quarter of her enlightened side is turned towards the earth, and she appears horned. When she has performed a quarter of her circuit, she shews us half her enlightened side, and we say she is a quarter old. In her second octant, shewing us more of her enlightened side, she appears gibbous. At her opposition her whole enlightened side is turned towards the earth, and therefore she appears round, then we say it is full moon. Immediately after this she begins to decrease, becoming gibbous at the third octant, bisected at her third quarter, and horned at her fourth octant, till at length she is invisible, makes another conjunction with the sun, and begins a new revolution. When she first becomes visible, at the time she is called the new moon, she appears, on the western part of the heavens, to be at no great distance from the sun. Every night she removes to a greater distance from him, till at last she appears in the eastern part of the horizon, just at the time the sun disappears in the western. After this she gradually moves further and further eastward, and therefore rises every night later and later, till at last she seems to approach the sun as nearly on the east as she did in the west, and rises only a little before him in the morning; as in the first part of her course she set in the west not long after him. All these different appearances are completed in the course of a month, after which they begin in the same order as before.

The same laws of nature which govern the planets in their revolution round the centre of their system, equally operate on the satellites in their revolution round their respective primaries. That each secondary planet is kept in its orbit by a power directed towards its primary, is proved from the phenomena of the satellites of Jupiter and Saturn, because they move in circles, as far as we can observe, about their respective primaries with an equal course, the primary being the centre of each orbit; and by comparing the times in which the different satellites of the same primary planet perform their periods, they are found to have the same relation to the distances from the primary, as the primary planets observe in respect to their mean distances from the sun. It also appears that the power which retains the moon in her orbit is the same with that which causes bodies near the surface of the earth to fall to the ground, since the moon is drawn from a right line with exactly the same velocity with which a body, placed at that distance from the earth, would be found to descend towards the centre of gravity. While the secondary planets are thus attracted by their primaries, they are also subject to the influence of the sun, who acts upon them with a force proportioned to their distance. This would tend not to disturb, but to preserve the regularity of their monthly revolutions; but that being in the course of these revolutions, sometimes nearer to the sun than their primaries, and sometimes more remote, they are not always acted upon in the same degree;

with their primaries, but when near the sun are attracted more, and when farther from him less. Hence arise various *irregularities* in the motion of the secondary planets, of which we shall give some examples with relation to the moon.

The moon's motion, from the first quarter, to the opposition, and from the third quarter to the conjunction is accelerated; while her motion, from the conjunction to the first quarter, and from the opposition to the third quarter, is retarded. Her orbit has a greater degree of curvature in the quarters than it would have received from the earth's curvature alone; and on the contrary, is less inflected in the conjunction and opposition. A third effect of the sun on the moon's motion is, that though the moon, undisturbed by the sun, might have moved in a circle of which the earth was the centre, yet by the sun's action, the moon would be nearer the earth at the new and full than at the quarters; but since the moon moves not in a circle, but in an ellipsis, the effects of the sun's influence are productive of additional irregularities, not only changing the position of the larger axis of her orbit, but varying, to a very considerable amount, the degrees of its eccentricity. All these irregularities are greater when the earth is near the sun, and less when she is farther from him. When all these irregularities are attentively considered, we shall be able to form some conception of the labour which was employed by those who first constructed tables for finding the changes of the moon.

The plane of the moon's orbit does not coincide with that of the ecliptic, but is inclined towards it in an angle of about five degrees. The points in which these two circles intersect each other are called nodes; and a line drawn from one of these to the other, is denominated the lines of the nodes. The line of the nodes has no fixed relation to the place of conjunction or opposition; but if it were uninterrupted by the sun's influence, would be parallel to itself, and in the space of a year pass through every degree and minute of the ecliptic. The action of the sun on the plane of the moon's orbit does, however, produce two irregularities, the first causing a variation in the angle that is made by the intersection of the moon's orbit with the ecliptic; the second by causing the line of that intersection to complete the revolution in about 19 days sooner than it otherwise would.

When the sun's light is so intercepted by the moon, that to any place of the earth the sun appears partially or wholly covered, he is said to undergo an eclipse, though properly speaking, it is only an eclipse of that part of the earth where the moon's shadow or penumbra falls. When she comes between the sun and the moon, the moon falls into the earth's shadow, and having no light of her own, she suffers a real eclipse from the interception of the sun's rays. When the nodes are in a right line with the centre of the sun at a new or full moon, the sun, moon, and earth, are all in a right line; and if the moon be then new, her shadow falls upon the earth; if full, the earth's shadow falls upon her. When the sun and moon are more than 17 degrees from either of the nodes at the time of conjunction, the moon is generally too high, or too low in her orbit to cast any part of her shadow upon the earth. When the sun is more than 12 degrees from either of the nodes at the time of full moon, the moon is generally too high or too low to go through any part of the earth's shadow, and in both cases there will be no eclipse. But when the

moon is less than 17 degrees from either node at the time of opposition, she goes through a greater or less portion of the earth's shadow, as she is more or less within this limit.

If the line of the nodes, like the earth's axis, was carried parallel to itself round the sun, there would be just half a year between the conjunctions of the sun and nodes, but the nodes move backwards, or contrary to the earth's annual motion 19⅓ degrees every year, and therefore the same node comes round the sun 19 days sooner every year than the year before. Consequently, in whatever time of the year we have eclipses of the luminaries about either node, we may be sure in about 173 days after, we shall have eclipses about the other node. In 223 mean lunations, after the sun, moon, and nodes have been once in a line of conjunction, they return so nearly to the same state again, as that the same node, which was in conjunction with the sun and moon at the beginning of the first of these lunations, will be within 28′ 12″ of a degree of a line of conjunction with the sun and moon again, when the last of these lunations is complete, and therefore there will be in this period a regular succession of eclipses, or returns of the same eclipses for many ages. In this period, which was first discovered by the Chaldeans, there are 18 Julian years, 11 days, 7 hours, 43 minutes, 20 seconds, when the last day of February, in leap year, is four times included; but when it is five times included, the period consists of only 18 years, 10 days, 7 hours, 43 minutes 20 seconds. But the falling back of the line of conjunction or opposition of the sun and moon 28′ 12″, with respect to the line of the nodes in every period, it will wear out in process of time, and then it will not return again in less than 12,492 years.

Eclipses of the sun are more frequent than those of the moon, because the sun's ecliptic boundaries are greater than the moon's; yet we have more visible eclipses of the moon than of the sun, because eclipses of the moon are seen from all parts of that hemisphere of the earth that is next her; but the sun's eclipses are visible only to that small portion of the hemisphere next him where the moon's shadow falls. When the moon changes at her least distance from the earth, and so near the node that her dark shadow falls upon the earth, she appears high enough to cover the whole disk of the sun, from that part on which her shadow falls, and the sun appears totally eclipsed for some minutes; but when the moon changes at her greatest distance from the sun, so near the node that her dark shadow is directly towards the earth, her diameter appears less than the sun's, and therefore she cannot hide his whole disk from any part of the earth; nor does her shadow reach us at that time: and at the place over which the point of her shadow hangs, the eclipse is annular, the sun's edge appearing like a luminous ring all round the body of the moon. When the change happens within 17 degrees of the node, and the moon at her mean distance from the earth, the point of her shadow just touches the earth, and she eclipses the sun totally at that small spot where her shadow fall; but the darkness is not of a moment's continuance.

In the greatest eclipse of the sun that can possibly happen, the duration of the total darkness cannot exceed three minutes and 13 seconds of an hour. The moon's dark shadow covers only a spot on the earth's surface about 180 miles broad, when the moon's diameter appears largest, and the sun's least; and the total darkness can extend no far-

ther than the dark shadow covers; but the moon's partial shadow or penumbra may then cover a circular space 490 miles in diameter, within all which the sun is more or less eclipsed, as the places are more or less distant from the centre of the penumbra. When the penumbra first touches the earth, the general eclipse begins, and when it leaves the earth the general eclipse ends, and from the beginning to the end the sun appears eclipsed to some parts of the earth or other. When the penumbra touches any place the eclipse begins at that place, and ends when the eclipse leaves it. When the moon changes at the node, the penumbra goes over the centre of the earth's disk, as seen from the moon, and consequently, by describing the longest line possible on the earth, continues the longest upon it; namely, at a mean rate, five hours 50 minutes, more if the moon be at her greatest distance from the earth, because she then moves slowest; less if she be at her least distance, because of her quicker motion.

The moon can never be eclipsed but at the time of her being full, and the reason she is not eclipsed at every full has been shewn already. When totally eclipsed she is not invisible, but appears of a dusky colour like tarnished copper. The true cause of her being visible is the scattered beams of the sun bent into the earth's shadow by going through the atmosphere. The longest duration of a lunar eclipse is 3 hours 37 minutes 6 seconds, if the moon be at her greatest distance from the earth; and 3 hours 37 minutes 26 seconds, if she be at her least distance. The reason of this difference is, that when the moon is furthest from the earth she moves slowest; and when nearest to it quickest. Not only when the moon is eclipsed, but whenever she makes her appearance, she presents a wide field for telescopic observation, and for curious conjecture. Many dark spots appear in her disk to the naked eye; and through a telescope their number is prodigiously increased; she also appears very plainly to be more prominent in the middle than at the edges, and to have the figure of a globe, and not that of a flat circle. Particular care has been taken to note all the shining parts in her surface; and, for the better distinguishing them, each has been marked with a proper name. Langrenus and Ricciolus have divided the lunar regions among the philosophers, astronomers, and other eminent men; but Hevelius and others have endeavoured to spoil them of their property, by giving the names belonging to different countries, islands, and seas on earth, to different parts of the moon's surface, without regard to situation or figure. The names adopted by Ricciolus, however, are those which are generally followed, as the names of Hipparchus, Tycho, Copernicus, &c. are more pleasing to astronomers than those of Africa, the Mediterranean Sea, Sicily, and Mount Etna.

If the moon be observed through a telescope at any other time than when she is full, the confines of light and darkness appears as if they were toothed, and cut with innumerable notches; and even in the dark part, near the borders of the illuminated surface, there are seen some small spots enlightened by the sun's beams. Astronomers have generally agreed that these shining spots are inequalities on the moon's surface; and not content with perceiving the bare existence of these lunar mountains, have endeavoured to measure their height by observing the length of their shadow. They have not perfectly coincided as to their conclusions from these mensurations, but most of them have

determined that there are much greater eminences in the moon than on the terraqueous globe. Mr. Ferguson says that some of her mountains, by comparing their height with her diameter, are found to be three times higher than the highest hills on earth: and Keil, in his astronomical lectures, has calculated the height of St. Catherine's hill, according to the observations of Ricciolus, and finds it nine miles. Mr. Herschell, however, who has made his observations with the best of instruments, and the most suspicious caution, has discovered that few, if any of the lunar mountains, much exceed an English mile in perpendicular height.

Not only mountains, but volcanoes have been discovered on the moon. In April, 1787, Dr. Herschell discovered three of them, of which two seem nearly extinguished, the other in a state of actual eruption. He turned his telescope to the third satellite of Jupiter, estimated the diameter of the burning part of the volcano to be equal to at least twice that of the satellite; whence, says Dr. Herschell, we may compute that the shining, or burning matter, must be above three miles in diameter. It was of an irregular round figure, and very sharply defined on the edges. The other two volcanoes were much farther towards the centre of the moon, and resembled large faint nebula, that were gradually much brighter in the middle, but no well defined luminous spot could be discerned in them. The appearances of what he calls the actual fire or eruption of a volcano, exactly resembled a small piece of burning charcoal when it is covered by a very thin coat of white ashes; and it had a degree of brightness about as strong as that with which such a coal would be seen to glow in faint day light. All the adjacent parts of the volcano mountain seemed to be faintly illuminated by the eruption, and were gradually more obscure as they lay at a greater distance from the crater.

The dusky spots on the moon's surface have given occasion to different conjectures. The most probable opinion appears to be this: that they are of two kinds, the one variable, the other permanent. The variable spots are most likely to be the shade which is cast by mountains as they turn various ways, encrease and decrease in their length, and are constantly found to be opposite to the sun. The permanent spots, it is said, must be some matter which is not fitted for reflecting the rays of the sun so much as the bright parts do, and this property we know, by experience, belongs to water rather than land, whence some philosophers conclude that the moon, as well as our earth, is made up of land and sea.

Whether the moon has an atmosphere is not fully decided. Various arguments have been adduced on both sides, but the evidence in favour of the existence of a lunar atmosphere seems to preponderate. It has even been asserted that flashes of lightning have been observed from the dark parts of the moon in the time of a solar eclipse, which must, if it were certainly known, afford indubitable proofs on the affirmative side of this dispute. So many instances of conformity between the lunar and the terraqueous globes have encouraged many to imagine that they resemble each other in a still more important particular, that of being habitable. The same conjecture has been formed concerning the primary planets, as all, such of them as are conveniently situated for observation, have had spots discovered on their surfaces. It has been alledged, in sup-

port of this opinion, that since every thing in this world, more or less, contributes to the support of sensitive life, since even a drop of putrid water is a sea to a great variety of animalcula, it is extremely unlikely that so many worlds should exist, be kept in motion by the same laws as uphold the earth in its orbit, be, like that, partakers of the interchange of day and night, and, in some degree, of summer and winter, to remain for ever desolate wastes, supporting nothing that can either admire or enjoy the goodness of its Creator.

Objections have been made to this hypothesis, from the different degrees of heat and light which the planets receive from the sun. On Venus, for instance, the heat must be more than double what it is with us; and on Mercury, upwards of ten times as great, so that if our earth was brought as near the sun as Mercury, every drop of liquid would be evaporated into steam, and every combustible solid set on fire; while, on the other hand, were we removed to the distance of the superior planets, such as the Georgium Sidus, Saturn, or even Jupiter, there is the highest probability that our liquids would be all congealed to ice, at the same that the climate would be utterly insupportable by such creatures as we are. Objections of the same kind are drawn from the small quantity of light which falls upon the more distant planets, which, it is thought, would be insufficient for the purposes of living and of rational beings.

That these objections are by no means conclusive, will appear, we trust, from the following observations: Some parts of the nearer planets are of a temperature which is supportable to natives of the terrestrial globe. The warmest climate of the planet Mars is not colder than many parts of Norway or Lapland are in spring or autumn. The greatest heat on the planet Venus exceeds the heat on the island of St. Thomas, on the coast of Guinea, or Sumatra, in the East Indies, about as much as the heat in those places exceeds that of the Orkney isles, or of the city of Stockholm, in Sweden; therefore at 60° north lat. on that planet, if its axis were perpendicular to the plane of its orbit, the heat would not exceed the greatest heat on earth; and of course vegetation like ours might be there carried on, and animals of the species on earth might subsist. If Mercury be supposed to have a like position, a circle of about 20 degrees diameter round each pole would enjoy the same temperature as the warmer regions of the earth, though in its hottest climate water would continually boil, and many inflammable substances would be parched up, destroyed, or converted into vapour. As to the quantity of light enjoyed by the most distant planets, it is much greater than one should readily imagine. The day light of the Georgium Sidus, the most remote of all that have yet been discovered, being equal to the effect of more than 200 full moons.

It is not, however, by any means necessary to suppose that every part of our system should be inhabited by beings of the same constitution. In our own world we find the nature of animals to be suited to that of the regions in which they reside, and we have no reason to assign why the same regulation may not obtain in the planetary spheres. It is probable, almost to certainty, that the elements of which the surfaces of planets are composed, have some relation to the density of the planets themselves. The most dense Planets are placed nearest the sun, as requiring the greater degree of heat to agitate and

keep their parts in motion, while the planets which are more rare, are removed to a greater distance, as they would be rendered unfit for their office by the intense heat to which the denser are expose.

Thus the very objections that are brought against the habitableness of the planets, lead to additional arguments in favour of the hypothesis. The satellites of Jupiter, Saturn, and the Georgium Sidus, abundantly confirm this reasoning, as they can answer no very important purposes, unless to the inhabitants of those vast and very remote bodies. To all this may be added the wonderful ring with which the planet Saturn is encompassed, the nature and design of which it is impossible to discover, but which affords a most incontrovertible evidence that Saturn is not excluded from the paternal care of the almighty Author of the universe.

Not only the sun, the planets, and their satellites, but certain other bodies, called comets, are comprehended within the limits of our system. These have always attracted the attention of mankind; but, for many ages, more excited their apprehensions of impending calamities than afforded them subjects for calm investigation. Even the philosophers of modern times were ignorant of their true motion, till it was discovered by Sir Isaac Newton. The comet of 1680 having been diligently observed by astronomers, Sir Isaac compared their observations, and was thence enabled to determine that comets were a kind of planets moving in very eccentric eliptical orbits. This hypothesis was confirmed by Dr. Halley, who carefully examined the phenomena of such comets as had been observed in former ages, calculated their elements, ascertained their periods, and concluded that their orbits were not confined within the bounds of the zodiac, but inclined to the ecliptic in angles of all possible dimensions. The comet of 1682 he considered as the same that had been seen in 1607, and 1531, assigned to it a period of 75 or 76 years, and ventured to foretel its return in 1758. The comet which appeared in 1662 was supposed to be the same with that of 1532, and to have a period of 129 years. And from the equality and similitude of appearances, it was concluded that the great comet of 1680 had appeared before, in the reign of Henry the First, in the consulate of Lampradius and Orestes, A. D. 531, and the year 44 B. C. a little before the assassination of Cæsar

The distance of comets from the centre of gravity varies with the position they occupy in their orbits. Their least distance is found by actual observation made at the time of their approach to the sun. Their mean distance has the same relation to their periods as is found to take place in the planets; and their greatest distance is discovered by doubling their mean distance, and subtracting their least distance from the product. Their distance from the earth is sought by observing their parallax, and their magnitude, by contemplating the apparent diameter of their nucleus. By this method it has been found that many of the comets are of magnitude inferior to that of the moon; but that others are considerably greater, though few of them equal the bulk of the earth. The remarkable circumstances with which they appear will be learnt by perusing the following extact from Long's Astronomy:

'The head of a comet, to the eye unassisted by glasses, appears sometimes like a

'cloudy star, sometimes shines with a dull light planet like that of the Saturn ; some co-'mets have been said to equal, some to exceed stars of the first magnitude ; some to 'have surpassed Jupiter, and even Venus, and to have cast a shadow as Venus sometimes 'does. The head of a comet, seen through a good telescope, appears to consist of a 'solid globe, and an atmosphere that surrounds it. The solid part is frequently called 'the nucleus, which, through a telescope, is easily distinguished from the atmosphere or 'hairy appearance. A comet is generally attended with a blaze or tail, whereby it is 'distinguished from a star or planet, as it is also by its motion. Sometimes the tail only 'of a comet has been visible at a place where the head has been all the while under the 'horizon ; such an appearance is called a beam. The nucleus of the comet of 1618 is 'said, a few days after coming into view, to have broken into three or four parts of ir-'regular figures. One observer compares them to so many burning coals, and says, 'they changed their situation while he was looking at them, as when a person stirs a fire, 'and a few days after were broken into a great number of small pieces. Another ac-'count of the same is, that on the first and fourth of December, the nucleus appeared 'to be a round, solid, and luminous body, of a dusky lead colour, larger than any star of 'the first magnitude. On the eighth of the same month, it was broken into three or four 'part of irregular figures ; and on the 20th, was changed into a cluster of small stars.'

'As the tail of a comet is owing to the heat of the sun, it grows larger as the comet 'approaches near to, and shortens as it recedes from that luminary. If the tail of a co-'met were to continue of the same length, it would appear longer or shorter according 'to the different views of the spectator ; for, if his eye be in a line drawn through the 'middle of the tail lengthwise, or nearly so, the tail will not be distinguished from the 'rest of the atmosphere but the whole will appear round ; if the eye be a little out of 'that line, the tail will appear short, and it is called a bearded comet when the tail hangs 'down towards the horizon. If the tail of a comet be viewed sideways, the whole length 'of it is seen. It is obvious to remark, that the nearer the eye is to the tail, the greater 'will be the apparent length thereof.'

'The tails of comets often appear bent, owing to the resistance of the ether, which, 'though extremely small, may have a sensible effect on so thin a vapour as the tails con-'sist of. This bending is seen only when the earth is not in the plane of the orbit of the 'comet continued. When that plane passes through the eye of the spectator, the tail 'appears straight.'

'Longomontanus mentions a comet that, in 1618, December the 10th had a tail 'above 100 degrees in length, which shows it must then have been very near the earth. 'The tail of a comet will, at the same time, appear of different lengths in different 'places, according as the air in one place is clearer than in another. It need not be 'mentioned that in the same place the difference, in the eyes of the spectators, will be 'the cause of their disagreeing in their estimate of the length of a tail of a comet.'

'Hevelius is very particular in telling us that he observed the comet of 1665 to cast a 'shadow upon the tail, for in the middle thereof appeared a dark line, It is somewhat 'surprising that Hook should be positive in affirming, on the contrary, that the place

'where the shadow of the comet should have been, if there had been any shadow, 'was 'brighter than any other part of the tail.' He was of opinion that comets had some 'light of their own; his observations were made in a hurry; he owns they were short 'and transitory. Hevelius's were made with so much care, that there is more reason to 'depend upon them. Dom Cassini observed, in the tail of the comet of 1680, a dark-'ness in the middle; and the like was taken notice of, by a curious observer, in that of '1744. There are three comets, viz. of 1680, 1744, and 1759, that deserve to have a 'further account given of them. The comet of 1680 was remarkable for its near ap-'proach to the sun; so near, that in its perihelion it was not above a sixth part of the 'diameter of that luminary from the surface thereof. The tail like that of other comets, 'increased in length and brightness, as it came nearer to the sun, and grew shorter and 'fainter as it went farther from him, and from the earth, till that and the comet were 'too far off to be any longer visible. The comet of 1744 was first seen at Lausanna, in 'Switzerland, December 13, 1743, N. S. From that time it increased in brightness and 'magnitude, as it was coming nearer to the sun. The diameter of it, when at that dis-'tance of the sun from us, measured about one minute, which brings it out equal to three 'times the diameter of the earth. It came so near Mercury, that if its attraction had 'been proportionable to its magnitude, it was thought probable it would have disturbed 'the motion of that planet. The nucleus, which had before been always round, on the '10th day of February appeared oblong in the direction of the tail, and seemed divided 'into two parts by a black stroke in the middle. One of the parts had a sort of beard 'brighter than the tail; this beard was surrounded by two unequal dark strokes that se-'parated the beard from the hair of the comet. The odd phenomena disappeared the 'next day, and nothing was seen but irregular obscure spaces, like smoke, in the middle 'of the tail, and the head resumed its natural form. February 15, the tail was divided 'into two branches, the eastern part about seven or eight degrees long, the western 24. 'On the 23d, the tail began to be bent; it shewed no tail till it was as near to the sun 'as the orbit of Mars. The tail grew longer as it approached nearer the sun, and at its 'greatest length, was computed to equal a third part of the distance of the earth from 'the sun. I remember that, in reviewing it, I thought the tail seemed to sparkle or vi-'brate luminous particles. Hevelius mentions the like in other comets, and that their 'tails lengthen and shorten while we are viewing. This is probably owing to the motion 'of our air. The comet of 1759 did not make any considerable appearance, by reason 'of the unfavourable situation of the earth all the time, its tail might otherwise have been 'conspicuous, the comet being then too near the sun to be seen by us; but deserves our 'particular consideration, as it was the first that ever had its return foretold.

The nature of comets, and the purposes they serve in the creation, have given rise to a variety of conjectures, all of which are embarrassed with difficulties. We shall, there-fore, only state a few of the most celebrated hypotheses, and leave them, without com-ment to the consideration of the reader. Sir Isaac Newton was of opinion that the tail of a comet was a very thin vapour, which the head sends out by reason of its heat; that it ascends from the sun just as smoke does from the earth; that, as the ascent of smoke

is caused by the rarefaction of the air wherein it is entangled, causing such air to ascend and carry the smoke up with it, so the sun's rays acting upon the coma, or atmosphere of the comet, do, by rarefaction and refraction, heat the same; that this heated atmosphere heats, and by heating rarefies the ether that is involved therein; and that the specific gravity with which such ether tends to the sun, is so diminished by its rarefaction, that it will now ascend from it, by its relative lightness, and carry with it the reflecting particles of which the tail is composed.

The nucleus he looked upon to be a body of extreme solidity, in order to sustain such an intense heat as the comets are sometimes destined to undergo. He also thinks that one use of the comets may be to furnish fuel for the sun, which otherwise would be in danger of wasting, from the continual emission of its light. Marian supposes the tails of the comets to be formed out of the luminous matter whereof the sun's atmosphere consists. This he thought extended as far as the orbit of the earth, and furnished matter for the aurora borealis. M. de Lalande is for joining the opinions of Newton and Marian together. Part of the matter which forms the tails of comets, he supposes to arise from their own atmosphere, rarefied by the heat, and pushed forward by the force of the light streaming from the sun; and also that a comet passing through the sun's atmosphere, is drenched therein, and carries away some of it.

Since the discovery of the vast powers of electricity, it has been believed by many, that the tails of comets are streams of electrical matter. An hypothesis of this kind has been published by Dr. Hamilton. He supposes that comets are of use to bring back the electric fluid to the planets, which has been discharged from the higher regions of their atmosphere.

This diversity of opinions may seem to indicate that the nature of comets is less known to us than that of the planets, and their satellites; we cannot, however, doubt but that they serve some important end, since they are the productions of that great invisible Agent, who hath made all his works in wisdom.

We must now contemplate the fixed stars, those beautiful luminaries which every where diversify the azure of the nocturnal sky. They are distinguished from planets and comets by their strong light, their frequent twinkling, and their permanent continuance in the same position relative to one another. Their strong light evinces that they are lucid bodies shining by their own radiance, unassisted by any other body. Their twinkling proceeds from the interception of their rays by some of those minute substances which are continually floating in the atmosphere.

The fixed stars are divided into classes, called magnitudes, according to the different degrees of their lustre, and apparent diameter. Those of the six first magnitudes are visible to the naked eye, the others are discovered only by the assistance of glasses, and are hence denominated telescopic stars.

The distance of the fixed stars is so great that all attempts to calculate their parallax have failed. Some have conjectured that the nearest of them are four hundred thousand times more distant than the sun. The imagination may perhaps be assisted by recollecting that, as they are undoubtedly suns, and are probably of a magnitude equal to that

of the great luminary of our system, so the sun would appear no greater to a spectator on one of these stars, than such a star appears to the inhabitants of this world; and that to a spectator on one of the telescopic stars, he would become absolutely invisible.

To arrange the stars in some regular order, so that they might be more easily known from each other, a variety of methods have been taken. The antient astronomers formed them into constellations, which they compared to certain persons, animals, or things belonging to their fabulous history. Such as they could not easily include in these imaginary figures they denominated unformed stars; but out of these several new groups have been composed by the moderns. The most conspicuous stars in each constellation have usually been made to agree with the most prominent parts of the animal, and some of them are distinguished by proper names, as Arcturus, Alderbaran, Lucida lyra. The method of Bayer is now also generally adopted. He assigns to each star in any respective constellation, the name and character of a member of the Greek alphabet, calling the most splendid Alpha, the next in magnitude Beta, &c.

There is also a division of the heavens into three parts: First, The zodiac, to which belong twelve constellations. Second, That region north of the zodiac, in which are 21 antient constellations, the Coma, Berenius, and seven constellations made by Hevelius out of the unformed stars. Third, The region south of the zodiac, including 15 constellations of the antients, 14 of the moderns, and three of Hevelius.

The constellations of the zodiac, each of them, in the days of Ptolemy, corresponded with the respective signs to which they had given name; but since then they have moved one sign forward, the stars of Aries being got into the sign Taurus, those of Taurus into Gemini, &c. This change, however, is not the result of any proper motion of the fixed stars, but of the joint influence of the sun and moon upon the earth.

By reason of the motion of the earth on its axis, more matter is accumulated round its equatorial parts than any where else on our globe. The sun and moon, by attracting this redundancy of matter, bring the equator sooner under them in every return towards it, than if there were no such accumulation. Therefore, if the sun set out as from any star or fixed point in the heavens the moment when he is departing from the equinoctial or from either tropic, he will come to the same equinox or tropic again 20 minutes $17\frac{1}{2}$ seconds of time, or 50 seconds of a degree, before he completes his revolution so as to arrive at the same fixed star from which he set out. Thus the equinoctial points recede 50 seconds of a degree westward every year, contrary to the sun's apparent annual motion.

As the equinoctial points recede in the ecliptic, the earth's axis is in motion on the earth's centre in such a manner as to describe a double cone round the axis of the ecliptic in the time that the equinoctial points move quite round the ecliptic, which is 25,920 years, and in that length of time the north pole of the earth's axis produced, describes a circle round the pole of the ecliptic, which remains immoveable in the centre. The earth's axis being $23\frac{1}{2}$ degrees inclined to the axis of the ecliptic, the circle described by the north pole of the earth's axis is 47 degrees in diameter, or double the inclination of the earth's axis. In consequence of this, the point which is at present the

north pole of the heavens, and near to a star, of the second magnitude, in the tail of the Little Bear, must be deserted by the earth's axis, which, moving backward a degree every 72 years, will, 6,480 years hence, be directed towards a star or point between the head and hand of Cepheus, which will then be the north pole of the heavens. The vernal equinoctial point will then be removed to that part of the heavens which is now the place of the winter solstice. Many stars that are now visible will then rise and set: thus those seven bright stars in the Great Bear called Charles' Wain, which now never go below or near the horizon, will then get almost wholly below the horizon. On the contrary, some of those stars, which now rise and set as the constellations Delphinus, Sagitta, Vulpecula, Andromeda, &c. will then be constantly visible. The present pole-star, which is always nearly the same height above the horizon, will then appear to revolve round the then poles of the world, and will have a difference of altitude upon the meridian of full 64° 30′. Stars that are altogether invisible to us in the southern hemisphere, will rise to the view of that age; while many that are now conspicuous above our horizon, will then be totally invisible. In 12,960 years the vernal equinox will, with respect to the constellations, have changed place with the autumnal; and the winter solstice will have changed place with the summer solstice.

The sun in the same part of the heavens, when he now makes the shortest days and longest nights, will then make the longest days and shortest nights. So that it will require 12,960 years yet more, to bring the north pole quite round so as to be directed toward that point of the heavens that is vertical to it at present; and then and not till then, the same stars which at present describe the equator, tropics, polar circles, &c. by the earth's annual motion, will describe the same over again.

It appears from astronomers, antient and modern, that several important changes have taken place in the fixed stars, for which no satisfactory reason has yet been adduced. Several stars observed by the ancients, and now no more to be seen, and others which were not known of in former ages, have since made their appearance. Some of them have also disappeared for some time, and again become visible. We are also assured, from the observations of astronomers, that some stars have been observed for some time which were never seen before, and for a certain time they have distinguished themselves by their superlative lustre; but afterwards decreasing, they vanished by degrees, and were no more to be seen. One of these stars being first seen and observed by Hipparchus, the chief of the antient astronomers, set him upon composing a catalogue of the fixed stars, that by it posterity might learn whether any of the stars perish, and others are produced afresh.

To account for these phenomena, many different hypotheses have been adopted. Dr. Keil thinks it is no ways improbable that these stars lose their brightness by a prodigious number of spots which entirely cover and overwhelm them. In what dismal condition must their planets remain, who have nothing but the dim and twinkling light of the fixed stars to enlighten them. Others, however, have made suppositions more agreeable to our notions of the benevolent character of the Deity. Sir Isaac Newton thinks that the sudden blaze of some stars may have been occasioned by the falling of a

comet into them; by which means they might be enabled to emit a prodigious quantity of light for a little time, after which they would gradually return to their former state. Others have thought that the variable stars which disappear for a time, were planets that were visible during only some part of their course; but their apparent immobility notwithstanding their decrease of lustre, will not allow us to think thus. Some have imagined that one side of them might be naturally much darker than the other; and when, by the revolution of the star upon its axis, the dark side was turned towards us, the star became invisible, and for the same reason, after some interval, resumed its former lustre. Mr. Maupertius in his dissertation on the figures of the celestial bodies, is of opinion that some stars, by their prodigiously quick rotations, may not only assume the figures of oblique spheroides, but be reduced to flat circular planes, so as to be quite invisible when their edges are turned towards us, as Saturn's ring is in such positions. But when a very eccentric planet or comet goes round any flat star in an orbit much inclined to its equator, the attraction of the planet or comet, in its perihelion, must alter the inclination of the axis of the star; on which account it will appear more or less large and luminous as its broad side is more or less turned towards us. Lastly, Mr. Dunn conjectures that the interposition of some gross atmosphere may solve the phenomena of new stars.

It is well known to every one who has observed the heavens with the least degree of attention, that they are surrounded by a kind of irregular zone, remarkable for its whiteness, and distinguished by the name of the Via Lactea, or Milky way. This had been considered by many astronomers as consisting of an infinite number of stars, but this opinion has been abundantly confirmed by the observations of Herschell. He first observed that portion of it which is situated about the hand and club of Orion, and found therein an astonishing multitude of stars, whose number he endeavoured to estimate by counting many fields of view, and computing, from a mean of these, how many might be contained in a given portion of the Milky Way. In the most vacant place he met with in that neighbourhood he found 36 stars; other six fields contained 110, 60, 70, 90, 70, and 74 stars, a mean of all which gave 79 for the number of stars to each field, and thus he found, by allowing 15 minutes for the diameter of his field of view, a bed of 15 degrees long, and two broad, which he had often seen pass before his telescope in an hour's time, could not contain less than 50,000 stars, large enough to be distinctly numbered, besides which, he suspected twice as many more, which could only be seen now and then, by faint glimpses, for want of sufficient light. The success he had within the Milky Way soon induced him to turn his telescope to the nebulous parts of the heavens. Most of these yielded to a Newtonian reflector of 20 feet focal distance, and 12 inches aperture, which plainly discoverd them to be composed of stars; or, at least, to contain stars, and to show every other indication of consisting of them entirely. Assisted by these observations, Dr. Herschell has suggested a new theory of the universe. He thinks it very probable that the great stratum, called the Milky Way, is that in which the sun is placed, through, perhaps, not in the very centre of its thickness. 'We gather '(says he) this from the appearance of the galaxy, which seems to encompass the whole

'heavens as it certainly must do if the sun is within the same : for suppose a number of 'stars, arranged between two parallel planes, indefinitely extended every way, but at a 'considerable distance from one another, and calling this a sidereal stratum, an eye placed 'somewhere within it will see all the stars in the direction of the planes of the stratum 'projected into a great circle, which will appear lucid, on account of the accumulation 'of the stars, while the rest of the heavens, at the sides, will only seem to be scattered 'over with constellations, more or less crouded, according to the distance of the planes 'or number of stars contained in the thickness or sides of the stratum. If the eye were 'placed somewhere without the stratum, at no very great distance, the appearance of 'the stars within it would assume the form of one of the less circles of the sphere, 'which would be more or less contracted to the distance of the eye ; and if this distance 'were exceedingly increased, the whole stratum might be drawn at last together into a 'lucid spot, of any shape, according to the position, length, and height of the stratum. 'Let us now suppose that a branch, or smaller stratum, should run out from the former 'in a certain direction, and let it also be contained between two parallel planes ex-'tended indefinitely onwards ; but so that the eye may be placed in the great stratum, 'somewhere before the separation, and not far from the place where the strata are still 'united, then will this second stratum not be projected into a bright circle like the for-'mer, but will be seen as a lucid branch proceeding from the first, and returning to it 'again, at a certain distance less than a semi-circle. What has been instanced in pa-'rallel planes may easily be applied to strata irregularly bounded, and running in va-'rious directions ; for their projection will, of consequence, vary according to the quan-'tities of the variations in the strata, and the distance of the eye from the same. And 'thus any kind of curvatures, as well as various degrees of brightness, may be produced 'in the projections. From appearances then, as I observed before, we may infer that the 'sun is, most likely, placed in one of the great strata of the fixed stars, and, very pro-'bably, not far from the place where some smaller stratum branches out of it.'

Not contented with having thus ascertained the position of the sun among the different strata of fixed stars, Dr. Herschel endeavours to point out the means by which, if numberless stars of various sizes were scattered over an indefinite portion of space in such a manner as to be almost equally distributed through the whole, they would at length collect into such clusters as are found to exist. This amazing effect he considers as the result of the laws of attraction, operating in every part of the universe. He also proves that the fixed stars are not absolutely at rest, but gradually tending towards each other ? that the sun, for instance, with all the system which surrounds it, is traversing the regions of space with a velocity at least equal to that with which the earth performs its annual revolution.

From all that has now been stated, it appears that the universe is much more extensive than we naturally imagine. The more the powers of the telescpae are improved, the greater number of stars are found to croud upon the sight, so that, though art is, in this respect, advanced so near to perfection, yet immense multitudes of stars are but imperfectly perceived.

'Here then let us stop (says Sturm, treating on a similar subject) and reflect how 'great that Being must be who produced these immense globes out of nothing! Who 'regulates their courses, and whose mighty hand directs and supports them all! What 'is the clod of earth which we inhabit, with all the magnificent scenes it presents to us, 'in comparison of those innumerable worlds? Were this earth annihilated, its absence 'would no more be observed than that of a grain of sand from the sea shore! What 'then are provinces and kingdoms when compared with these worlds! They are but 'atoms dancing in the air, which are discovered to us by the sun's beams. What then 'am I, when reckoned among the infinite number of God's creatures? I am lost in my 'own nothingness! But little as I appear in this respect, I find myself great in others. 'There is a great beauty in this starry firmament which God has chosen for his throne! 'How admirable are those celestial bodies! I am dazzled with their splendor, and en-'chanted with their beauty. But, notwithstanding this, however beautiful, and however 'richly adorned, yet this sky is void of intelligence. It is a stranger to its own beauty, 'while I, who am mere clay, moulded by a divine hand, am endowed with sense of rea-'son, I can contemplate the beauty of these shining worlds: nay, more, I am already, 'by divine grace, to a certain degree acquainted with their sublime Author; and, by 'faith, I see some small rays of his divine glory. O may I be more and more acquainted 'with his works, and make the study of them my employ, till by a glorious change, I 'rise to dwell with him above the starry regions!'

CHAPTER. II.

MATHEMATICAL GEOGRAPHY ——*Introduction—Form of the Earth—Latitude—Magnitude of the Earth—Longitude—Climates—Zones—Annual Revolution of the Earth, and consequent change of Seasons—Moon—Fixed Stars—Reflections.*

THE earth has, for many reasons, a better claim to our investigation than any of the other bodies that constitute the universe. It is the spot to which providence has confined our abode, the only world into which we can make any accurate researches; its magnitude is the standard by which we measure the heavens and its surface, the first station were we observe the laws of attraction. Many of the observations we shall here make on the earth are equally applicable to the planetary spheres; and several positions, that we have been hitherto obliged to assume, will now appear to be supported by the most indubitable evidence.

The design of this chapter is to consider the figure and magnitude of the terraqueous world, and the relations of different parts of its surface to the most conspicuous celestial luminaries. That the figure of the earth is nearly spherical, has been proved by a variety of arguments. The earth's shadow cast upon the moon at the time of a lunar eclipse, is always bounded by a circular line, although the earth is incessantly turning its different sides to the moon, and very seldom turns the same side towards her in different eclipses, because they seldom happen at the same hours. Were the earth shaped like a round flat plate, its shadow would only be circular when either of its sides directly faced the moon, and more or less eliptical as the earth happened to be turned more or less obliquely towards the moon when she is eclipsed. The noble art of navigation affords another most evident proof, for since that art hath never delivered any other rules of sailing than what are deduced from the spherical form of the earth, and the resolutions of spherical triangles, there is no room for doubting but that it hath truly supposed that spherical figure: for it cannot be that the rules for directing ships into ports through the vast ocean, should infallibly have their intended effect, if the terraqueous world were of any other figure than that from which the whole art is derived. But that which puts this question beyond the reach of dispute, is the great number of voyages which have been performed round the world, by ships of almost every European nation.

The earth being globular, its outward parts, as the several countries, seas, &c. are most naturally represented upon the surface of a globe; and when such a body has the outward parts of the earth and sea delineated upon its surface, and placed in their natural order and situation, it is called a terrestrial globe. On this are drawn the ecliptic, the equator and its poles, together with a certain number of meridians, and of parallels, for the ready ascertaining the latitude and longitude of places.

The latitude of places is reckoned from the equator. It must be always equal to the

elevation either of the north or south pole above the horizon, because when we are exacly on the equator both poles appear on the horizon. There is, however, no star exactly in either of the celestial poles; therefore, to find the altitude of that invisible point called the pole of the heavens, we must choose some star near it that does not set; and having, by several observations, found its greatest and least altitudes, divide their difference by two, and half that difference added to the least, and substracted from the greatest altitude of the star, gives the exact altitude of the pole, or latitude of the place Thus supposing the greatest altitude of the star observed is 60°, and its least 50°, we know that the latitude of the place where the observation was made is exactly 55°.

As there are 90 degrees of latitude from the equator to either of the poles, so four times this number, or 360, must necessarily comprehend the whole circumference of the earth. If therefore one degree be accurately measured, the magnitude of the whole terraqueous globe may be nearly ascertained. This method will approach just as near to accuracy as the figure of the world we inhabit does to a perfect sphere. On this principle it is that several attempts have been made, in different ages, to ascertain the magnitude of the earth. Eratosthenes, the librarian of Ptolemy Evergetes, is among the most celebrated of the antient astronomers who laboured for the solution of this noble problem. Having observed that, on the day of the summer solstice, the sun passed through the vertical point of the city Syenne, he caused a well to be dug there, in such a situation, that at twelve o'clock, on the fore-mentioned day, it should be wholly enlightened by the solar rays. He also placed in the city of Alexandria a concave hemisphere, with a post in its centre. Remarking, on the appointed day, at the instant of noon, the distance of the sun from the vertical point by the shadow of this post, he found, that at the time when the sun was vertical to the city of Syenne, it wanted one-fiftieth part of a whole circle to be so at Alexandria. From this observation he naturally concluded that the city of Alexandria must be one-fiftieth part of the whole circumference of the earth distant from Syenne. The distance between these two cities was easily measured, and when ascertained, he multiplied it by 50, and thus discovered that the whole earth was 250,000 furlongs in circumference, as 5,000 furlongs was the distance from one of these stations of observation to the other.

Posidonius next after him set upon this business, who, from his enquiry, found that 70,000 furlongs were to be cut off from the computation of Eratoshenes, and affirmed that the compass of the earth is 180,000 furlongs. This measure was received and used by Ptolemy and other geographers after him for a long time, nor is it, as will appear from what follows, very wide of the truth. In the ninth century, Al Mamun, kalif of Arabia, employed certain eminent mathematicians to measure a degree in the fields of Mesopotamia. The result of their research was, that a little more than 20,000 miles were attributed to the circumference of the earth. Long after all these, Snellius, an Hollander, from a more exact scrutiny, demonstrated 24,000 miles were to be ascribed to this earth. Thus we are come at length, to the last measures of the English and French, which were determined by the most accurate methods that ever were, or perhaps ever will be put in practice. Our countryman, Norwood, took the sun's altitude at London on the day of the

summer solstice, and then made the same observations on the sun's altitude on the meridian at York the year following, after which he measured the distance between the two cities, and found 139 of our miles were equal to two degrees, and consequently about 25,020 agree to the earth's circumference.

The French, by means of a yet more accurate search, and of advantages which scarcely are elsewhere to be expected, twice set themselves to this work, by command of the Most Christian King, surpassed all that went before them. The learned Picard presided over the work the first time, and the famous Cassini the second time. The first mensuration was performed thus: In Picardy there is a certain causeway paved with stones, which lies in a right line, and leads from a place called the Jews' village, to Jurivisium: this way afforded the fundamental base of the whole mensuration, and it reaches for almost seven miles in length. It was easy, therefore by known measures applied to it, so exactly to determine the length of this rectilinear way, that they should scarcely err one single foot from the truth. Then, by the help of so great a rectilinear distance, they were able also to measure large intervals of places by several stations and trigonometrical calculations. They used such industry as to determine the distances of the places they measured by a double series of stations and triangles, and so happily did the matter succeed with them, that scarcely any body can expect to perform it more accurately. For the space between Malvaan and Surdon, which lies almost in a straight line from north to south, they measured with the greatest diligence, by means of the most exquisite instruments furnished with telescopic sights. They found also the sun's altitude in both places with equal care, as did Cassini afterwards. From all which operations they assigned almost the same measure to the perimeter of the earth which Norwood had done. We may, therefore rest satisfied that this determination is not very far removed from the truth.

These mensurations gave rise to a very serious dispute concerning the figure of the earth. Cassini, from Picard's measurement; concluded that the earth was an oblong spheriod, but Newton, from a consideration of the laws of gravity, and the diurnal motion of the earth, had determined the figure of it to be an oblate spheriod, and flatted at the poles. To determine this point, Louis XV. resolved to have two degrees of the meridian measured, one under or very near the equator, the other as near the pole as possible. For this purpose the Royal Academy of Sciences sent Mr. Maupertuis, Clainault, Camus, Le Monier, to Lapland: they were accompanied by the Abbe Outhier, a correspondent of the same academy. They were joined by Mr. Celsius, professor of anatomy at Upsal, and having set out from France in the spring of the year 1736, returned to it in 1737, having fully accomplished their errand.

On the southern expedition were dispatched M. Godin, Condamine, and Bouguer, to whom the king of Spain joined two other very ingenious gentlemen, and officers of the marine. They left Europe in 1735, and after enduring innumerable hardships and difficulties in the execution of their commission, returned to Europe by different ways, in the years 1744, 1745, and 1746. In consequence of these laborious researches, the measurement of Pichard was revised and corrected, and found to agree with the two

which have now been described, the hypothesis of Cassini was abandoned, and that of Newton generally received. It is now generally admitted that the equatorial diameter of the earth exceeds its polar diameter by the excess of thirty miles.

The longitude of a place is its distance from a given meridian, and consequently can never exceed 180°, though sometimes it is reckoned easterly quite round the globe. The meridian of any part of the world is a great circle passing through the zenith and nadir of the place, and through each of the poles. It therefore divides the heavens, as well as the earth, into two equal parts, the eastern and the western hemisphere. All such celestial bodies as are in the eastern hemisphere are rising, and all such as are in the western hemisphere are sitting. The sun is at the meridian at noon, and at midnight that part of the meridional circle which is below the horizon, and on which the sun is at midnight, is usually stiled the opposite meridian. From what has been said it will be easily understood that the meridian of any place on earth has no fixed relation to the stars, but passes, in the space of 24 hours, through every part of the heavens. Hence it is that geographers, of different nations, reckon their longitude from different meridians, commonly choosing the meridian passing through the metropolis of their own country for the first. Thus the English generally reckon from the meridian of London, the French from that of Paris, the Dutch from that of Amsterdam, &c. : some however, reckon from the meridian of Ferroe, one of the azores, and mariners generally from the last known land they saw. This arbitrary way of reckoning the longitude from different meridians, makes it necessary, whenever we would express the longitude of any place, that the place it is counted from be also expressed.

The following observations are very easily authenticated, and may contribute to give the reader some further idea of longitude. First, If a man should travel directly north or directly south, quite round the globe, he would continually change his latitude, and pass through the two poles of the world without deviating in the least from the meridian of the place he departed from, and consequently, on his return, will not differ in his account of time from the people residing in the said place. Second, If a man should travel round the globe, either due east or due west, or on an oblique course, betwixt the meridian and the east and west points, he will continually change his longitude ; and if his course be eastward, he will gain a complete day in his reckoning, or reckon one day more than the inhabitants of the place from which he departed ; or, if his course had been west, he would have lost a day, or reckoned one day less. The reason of this is easily assigned ; for admitting our traveller steers eastward so many miles in one day as to make his difference of longitude equivalent to a quarter of an hour of time, it is evident that the next day the sun will rise to him a quarter of an hour sooner than to the inhabitants of the place from whence he departed, and so, daily, in proportion to the rate that he travels, which, in going quite round, will make up one natural day. In like manner, if he steer westward after the same rate, he will lengthen every day a quarter of an hour, and consequently the sun will rise to him so much later every day ; by which means, in going quite round, he will lose one day complete in his reckoning. Whence

it follows, Third, If two persons should set out from the same place, one steering eastward, and the other westward, and so continue their courses quite round the globe, until they arrive at the place from which they set out, they will differ two days in their reckoning at the time of their return. Fourth, The people residing in the easternmost of any two places, will reckon their time so much the sooner than those who live in the other place, according to the difference of longitude betwixt the two places, allowing one hour for every 15 degrees.

The reader is now enabled to understand the methods by which the discovery of the longitude has been attempted. The great difficulty attending the enquiry is, that the meridian of any place has no relation to the stars, and therefore cannot be determined like that of a star, by the inspection of the heavens. The method of discovering the longitude is by determining the difference of time at the place from whose meridian the longitude is reckoned, and the time at the place whose longitude is sought: for as 15 degrees of longitude is equivalent to an hour of time, so the relation between any greater or less space of time, and the difference of longitude, is easily discovered. All then that remains, is to determine the difference between the time at the two different places, and this has been found extremely difficult. The time at the place where the observation is made, is easily determined by celestial observations; but it is not so easy to discover the time at the place from which the longitude is to be reckoned. To remove this difficulty several methods have been tried. Time pieces have been invented which have recorded the time with wonderful exactness; but as even these are liable to error, recourse has been still had to certain changes in the heavens. Eclipses are, in this respect, extremely serviceable, especially those of the moon, because they are more frequently visible than those of the sun, and the same lunar eclipse is of equal largeness and duration wherever it is seen. The eclipses of Jupiter's satellites are still more convenient, because they occur more frequently, but are of no use at sea, because the rolling of the ship hinders all nice telescopic observations. A third celestial method is now more successfully practised. Wenner, who flourished in the fifteenth or sixteenth centuries, proposed to find the longitude at sea, by observing the approach of the moon to the fixed stars. The explanation of the theory of the moon, by Newton and other eminent astronomers, gave a greater degree of practicability to such observations; and Neville Maskeline, the present Astronomer Royal, has at length brought the method into general practice.

The exact conformity which has been already observed between the difference of longitude and difference of time, proves to us that every meridian of our globe is equally affected by the light of heaven. This remark would apply to the different parallels of latitude, were it not for the two following reasons: First, The earth, on account of the elliptical figure of its orbit, tarries eight days longer in the southern, than in the northern signs, consequently, as the sun always appears in that part of the heavens which is opposite to the earth's place, his visit to the northern hemisphere is eight days longer than that which he makes to the southern hemisphere. Second, As the solar rays fall more

directly on the equatorial parts of our globe than on those which more immediately encircle the poles, both light and heat must, in the former regions, be more intense than in the latter.

The whole of the earth's surface is divided into 60 climates, 24 extending from the equator to each polar circle, and the remaining six from the polar circle to its respective pole. Climates of the former description are distinguished from each other by the difference of half an hour in the duration of their longest day; and those of the latter, by the difference of a month in the continuance of the sun above their horizon.

The terraqueous globe is also divided into zones: torrid, temperate, and frigid. The torrid, or burning zone, is 23° 28' broad, and bounded by the tropical circles. Between the tropics of the polar circles lay the temperate zones, which are two, the northern extending from the tropic of Cancer to the arctic circle of the southern, which is situated between the tropic of Capricorn and the antarctic circle. The frigid zones also are two, surrounding each of the poles from them 23° 28'. The space occupied by the torrid zone is greater than that which is filled by the frigid; but not equal to that which is possessed by the temperate regions.

The reader is now made acquainted with the five zones, and may, perhaps, be able to point out their limits on the map: he has not, however, yet been instructed to assign the causes from which this division of the earth's surface derives its origin. Enough has been done to enlarge his catalogue of words; but if he would make any valuable addition to his store of ideas, let him take his station on various regions of our globe, view them as affected by the succession of seasons, and investigate their relation to the celestial luminaries.

Whenever the days are exactly 12 hours long, the sun rises due east and sets due west; where the days exceed this length, he rises and sets towards the north: and where they are of shorter duration, he rises and sets towards the south. The point where the sun makes his first and last appearance varies from the east and west points of the horizon in the same proportion that the length of day varies from the fore-mentioned number of hours. This observation applies to every part of the earth, unless precisely at the poles, where there is neither east nor west; therefore, at the north pole, the sun always rises and sets in the south, and in the south pole he always rises and sets in the north.

The appearances of the sun at noon are somewhat more various. To all that reside between the tropics he is vertical twice in the year. He is, therefore, seen by them in three different positions: north, south, and vertical. To such as dwell immediately under the tropical circles, he is vertical but once in the course of his annual revolution. Such as dwell beyond the tropic of Cancer, and such as dwell under it, (unless when the sun is vertical to them) always see him in the south; while such as dwell beyond the tropic of Capricorn, and such as dwell under it (unless when the sun is vertical to them) always see him in the north.

On the 18th of March, when the sun enters the sign of Aries, he is vertical to that portion of our globe which corresponds with the equinoctial, south to all that lays north

of it, and north to all that lays south of it. The days and nights are now of equal length to all the inhabitants of the earth, unless at the poles, and here the sun is seen fixed in the horizon. In the northern hemisphere it is spring, and in the southern hemisphere it is autumn. When the sun has passed the equinox he proceeds towards the north, becoming every day vertical to places farther north of the equator than those to which he was vertical the day preceding. In the northern hemisphere the days are continually shortening. Every day the northern pole becomes more enlightened, and a greater portion of the arctic regions have the sun continually elevated, while, to the south pole, and the antarctic regions, he becomes every day more depressed.

June the 21st, the su enters Cancer, and is, consequently vertical to those who are directly under the tropical circle. To all the other inhabitants of the torrid zone, he appears in the north. It is now longest day to the whole northern hemisphere, and shortest day to the whole southern hemisphere. To all those that live between the arctic circle and the pole, the sun does not set, and his height above the horizon, when he is in the lower part of the meridian, is equal to their distance from the arctic circle; for example, those who live in the 80th parallel have the sun when he is lowest, at this time $13\frac{1}{2}^{\circ}$ high. He is just visible to such as inhabit under the antarctic circle, but entirely unseen by such as live nearer to the south pole,

Immediately after this the sun declines towards the south, and becomes vertical a second time to such as are situated between the equator and the tropic of Cancer. The days decrease in the northern, and increase in the southern hemisphere, and the arctic regions become less enlightened. At length the sun arrives at the first of Libra, and exhibits the same phenomena as at the vernal equinox, unless that it is now autumn where it was then spring, and spring where it was then autumn. The days continue increasing in the south, and decreasing in the north, till the 21st of December. Then the sun, having in his progress become vertical to all the south half of the torrid zone, takes possession of the winter solstice, and exhibits effects exactly opposite to those which he produces when in the tropic of Cancer. The sun is now vertical to such as live directly under the tropic of Capricorn, and appears south to all that inhabit north of that climate. It is longest day in the southern hemisphere, and shortest day in the northern; it is then perfectly light at the south pole, and total darkness at the north pole.

After this he becomes a second time vertical to the southern regions of the torrid zone, and thus, proceeding to the vernal equinox, completes his annual revolution.

The inhabitants of different latitudes not only experience that astonishing diversity of seasons we have been now describing, but they also receive the influence of the moon with circumstances of considerable variety. We cannot give the reader a more satisfactory account of these phenomena than by subjoining the following extracts from a modern publication of unquestionable merit.

" It is generally believed that the moon rises about 50 minutes later every day than the preceding; but this is true only with regard to places on the equator. In places of considerable latitude there is a remarkable difference, especially in the harvest time. Here the autumnal moon rises very soon after sun-set, for several evenings together.

At the polar circles, where the mild season is of very short duration, the autumnal full moon rises at sun-set, from the first to the third quarter. And at the poles, where the sun is for half a year absent, the winter full moons shine constantly, without setting, from the first to the third quarter. All these phenomena are owing to the different angles made by the horizon, and the different part of the moon's orbit; and may be explained in the following manner: The plane of the equinoctial is perpendicular to the earth's axis; and, therefore, as the earth turns round its axis, all parts of the equinoctial make equal angles with the horizon, both at rising and setting, so that equal portions of it always rise or set in equal times. Consequently, if the moon's motion were equable, and in the equinoctial at the rate of 12° 11′ from the sun every day, as it is in her orbit, she would rise and set 50 minutes later every day than on the preceding; for 12° 11′ of the equator set in 50 minutes of time in all latitudes. But the moon's motion is so nearly in the ecliptic, that we may consider it at present as moving in it. Now the different parts of the ecliptic, on account of its obliquity to the earth's axis, make very different angles with the horizon as they rise or set. Those parts or signs, which rise with the smallest angles, set with the greatest, and vice versa. In equal times, whenever this angle is least; a greater portion of the ecliptic rises when the angle is longer, as may be seen by elevating the pole of a globe to any considerable latitude, and then turning it round its axis in the horizon. Consequently, when the moon is in those signs which rise or set with the smallest angles, she rises or sets with the least difference of time, and with the greatest difference in those signs which rise or set with the greatest angles."

"In northern latitude the smallest angle made by the ecliptic and horizon is when Aries rises, at which time Libra sets; the greatest when Libra rises, at which time Aries sets. Hence, from the rising of Aries to the rising of Libra, which is twelve sidereal hours, the angle increases: and from the rising of Libra, to the rising of Aries, it decreases in the same proportion. By this article it appears that the ecliptic rises fastest about Aries, and slowest about Libra."

"On the parallel of London, as much of the ecliptic rises about Pisces and Aries as the moon goes through in six days; and, therefore, while she is in these signs, she differs but two hours in rising for six days together, that is about 20 minutes later every day or night than the preceding, at a mean rate. But in 14 days afterward the moon comes to Virgro and Libra, which are the opposite signs to Pisces and Aries; and there she differs almost four times as much in the rising: namly, one hour and fifteen minutes later every day or night than the former whilst she is in these signs."

"As the moon can never be full but when she is opposite to the sun, and the sun is never in Virgo or Libra but in our autumnal months, it is plain that the moon is never full in the opposite signs Pisces and Aries, but in these two months; and, therefore, we have only two full moons in a year, which rise so near the time of sun-set for a week together as above mentioned. The former of these is called the harvest moon, and the latter the hunter's moon."

Here it will probably be asked why we never observe this remarkable rising of the

moon, but in harvest, seeing she is in Pisces and Aries twelve times in a year beside, and must then rise with as little difference of time as in harvest? The answer is plain; for in winter these signs rise at noon, and being then only a quarter of a circle distant from the sun, the moon in them is in her first quarter; but when the sun is above the horizon, the moon's rising is neither regarded nor perceived. In spring these signs rise with the sun, because he is then in them; and as the moon changeth in them at that time of the year, she is quite invisible. In summer they rise about midnight, the sun being then three signs, or a quarter of a circle before them, the moon is in them about her third quarter; when rising so late, and giving but very little light, her rising passes unobserved. And in autumn, these signs being opposite to the sun, rise when he sets, with the moon in opposition, or at the full, which makes her rising very conspicuous."

"At the equator the north and south poles lie in the horizon, and therefore the ecliptic makes the same angle southward, with the horizon, when Aries rises, as it does northward, when Libra rises. Consequently, as the moon rises and sets nearly at equal angles with the horizon all the year round, and about 50 minutes later every day or night than on the preceding, there can be no particular harvest moon at the equator. The farther any place is from the equator, if it be not beyond the polar circle, the more the angle is diminished which the ecliptic and horizon make when Pisces and Aries rise: and, therefore, when the moon is in these signs, she rises with a greater proportionable difference later every day than the former; and is for that reason the more remarkable about the full, until we come to the polar circles, or 60 degrees from the equator: in which latitude the ecliptic and horizon become coincident every day for a moment, at the same siderial hour, or 3 minutes 56 seconds sooner every day than the former, and the very next moment one half of the ecliptic, containing Capricorn, Aquarius, Pisces, Aries, Taurus, and Gemini rises, and the opposite half sets. Therefore, whilst the moon is going from the beginning of Capricorn to the beginning of Cancer, which is almost 14 days, she rises at the same siderial hour; and in autumn, just at sun-set, all that half of the ecliptic, in which the sun is at that time, sets at the same sidereal hour, and the opposite half rises, that is 3 minutes 56 seconds of mean solar time sooner every day than the day before. So, whilst the moon is going from Capricorn to Cancer, she rises earlier every day than on the preceding, contrary to what she does at all places between the polar circles; but during the above 14 days, the moon is 24 siderial hours later in setting; for the six signs which rise on the eastern side of the horizon are 24 hours in setting on the western side of it. In northern latitudes the autumnal full moons are in Pisces and Aries, and the vernal full moons in Virgo and Libra; in southern latitudes just the reverse, because the seasons are contrary, but Virgo and Libra rise at as small angles with the horizon in southern latitudes, as Pisces and Aries do in the northern, and therefore the harvest moons are just as regular on one side of the equator as on the other.

"As the signs which rise with the least angles, set with the greatest, the vernal full

moons differ as much in their times of rising every night as the autumnal full moons do in their times of setting; and set with as little difference as the autumnal full moons rise with, the one being in all cases the reverse of the other."

"Hitherto, for the sake of plainness, we have supposed the moon to move in the ecliptic, from which the sun never deviates. But the orbit in which the moon really moves is different from the ecliptic; one half being elevated $5\frac{1}{3}$ above it, the other as much depressed below it; so the moon can never be in the ecliptic but when she is in either of the nodes, which is at least twice in every course from change to change, and sometimes thrice. The moon's oblique motion with regard to the ecliptic, causes some difference in the times of rising and setting from what has been already mentioned. For when she is northward of the ecliptic, she rises sooner and sets later than if she moved in the ecliptic; and when she is southward of the ecliptic, she rises later and sets sooner."

"At the polar circles, when the sun touches the summer tropic, he continues 24 hours above the horizon, and 24 hours below it, when he touches the winter tropic. For the same reason the moon neither rises in summer, nor sets in winter, considering her as moving in the ecliptic; for the winter full moon being as high in the ecliptic as the summer sun, must therefore continue as long above the horizon, and the summer full moon being as low in the ecliptic as the winter sun, can no more rise than he does. But these are the only two full moons which happen about the tropic, for all the others rise and set. In summer the full moons are low, and their stay is short above the horizon, when the nights are short, and we have the least occasion for moon light: in winter they go high and stay long above the horizon, when the nights are long, and we want the greatest quantity of moon-light."

"As the sun is above the horizon of the north pole from the 20th of March to the 23d of September, it is plain that the moon, when full, must be below the horizon during that half of the year. But when the sun is in the southern half of the ecliptic, he never rises to the north pole; during which half of the year, every full moon happens in some of the northern half of the ecliptic, which never sets. Consequently, as the polar inhabitants never see a full moon in summer, they have her always in the winter, before, at, and after the full, shining for 14 of our days and nights. And when the sun is at its greatest depression below the horizon, being then in Capricorn, the moon is at her third quarter in Aries, full in Cancer, and at her first quarter in Libra. And as the beginning of Aries is the rising point of the ecliptic, Cancer the highest, and Libra the setting point, the moon rises at her first quarter in Aries, is most elevated above the horizon, and full in Cancer, and sets at the beginning of Libra in her third quarter, having continued visible for 14 diurnal rotations of the earth. Thus the poles are supplied one half of the winter time with constant moon-light in the sun's absense; and only lose sight of the moon from her first to her third quarter, while she gives but very little light, and could be of little or no service to them."

The appearance exhibited by the fixed stars to the inhabitants of the different regions of the earth, affords also some considerable variety. To such as dwell immediately under the line, all the stars rise and set, unless such as may be observed exactly at the

poles, and these would remain fixed in the horizon. The farther we depart from the equator on either side, the greater number of stars continue above the horizon, whilst an equal space of the heavens is always depressed below it. The same stars that to the inhabitants of any given latitude remain continually above the horizon, to the inhabitants of an opposite latitude remain depressed below it. Those stars, for instance, which are always visible at lat. 45° north, are always invisible at lat. 55° south. At each of the poles half of the stars are visible, and these continue at all times above the horizon

The planets and comets must, of course, be visible only where the constellations are visible through which they are traversing, therefore afford room for no farther observation.

If the former chapter presented the Deity to our view as the mighty monarch of an unbounded empire, this leads us to revere him as the universal Father, who has adapted, with infinite kindness, the movements of the planetary spheres, to the various circumstances of the different regions of the earth; and while he probably designed the celestial luminaries to furnish habitations for vast numbers of intelligent beings, hath also mercifully appointed them to be the inhabitants of this earth for signs and for seasons, for days and for years.

CHAPTER III.

METEOROLOGY.—*Difficulties attending meteorological enquiries—Probable causes of the variation of seasons—Light—Optical definitions—Properties of light—Its velocity—Minute particles—Inflection—Reflection—Moon-light—Refraction—Refrangibility—Prismatic colours—Rainbow—Halos—Parhelion—Colours of natural bodies—Blue colour of the sky—Colours of clouds—Transparent, opake, and phosphoric bodies—Benefits of light—Heat—Opinions of Boyle and Boerharve on the nature of fire—Electricity—Of silk—Of glass—Electrical machine—Jar, and battery—Of gumlac, amber, &c.—Of the tourmalin—Franklin's theory—Affinity between magnetism and electricity—Metals melted by electricity—Air, material, heavy—Barometer—Elasticity—Gasses—Height of the atmosphere—Undulation—Wind—Hurricanes—Whirlwinds—Water-spouts—Evaporation—Mists—Clouds—Dew—Rain—Frost—Hail—Snow—Lightning—Thunder—Meteors—Falling stars—Ignes fatui—Aurora borealis.*

IT has been frequently and justly remarked that the farther men advance in the pursuit of wisdom, the less are they elated by the retrospect of their attainments: that while the smatterer in knowledge is proud, the true philosopher is humble. This remark is applicable, in its utmost extent to the investigation of the subject before us. The student that has barely obtained an insight into the doctrine of zones and climates, imagines himself able at once to determine the weather that is experienced in every part of our globe. He calculates the heat of each region by the inverse proportion of its latitude, and arguing from the slender stock of his own actual observations, fixes with precision which tracts of the earth's surface are covered with eternal snow, which are scorched up with continual heat, and which enjoy a truly temperate medium, like that with which his native island is favoured. He enjoys this pleasing delusion till he is awakened out of it by further information. He hears that the waters of Holland are covered with bridges of ice, while those of England scarcely support the burthen of an egg; and that countries in America, which lay under the parallel of Cambridge, are scarcely habitable in winter by reason of the cold. He now wishes to understand the causes by which such an astonishing variety is produced; but has not gone far in this pursuit, before he becomes surrounded with difficulties. Hills peep over hill, and Alps rise upon Alps. In some cases he obtains fixed data, concerning which all parties are agreed; in others, he can only collect the opinions of the learned. These difficulties arise from the subtile nature of the elements, which are, in many instances, not easily perceptible, either to the eye or to the touch; from the secrecy with which many of the operations of nature are conducted, and to that propensity, so powerful among mortals, to supply their want of information by the fertility of their conjecture.

The phenomena of our atmosphere, of which, in this chapter, it is designed to treat, are denominated meteors, and divided into two classes, viz. those which rise in the heavens, seemingly without any connection with the earth; and those which are perceptible only in the lower regions of the atmosphere. The former are only three in number, viz. large fire-balls, falling stars, and the aurora borealis. The second class is much more numerous, including the phenomena of the ordinary winds, rain, hail, snow, clouds, and vapours of all kinds, thunder and lightning, hurricanes, whirlwinds, water-spouts, ignes fatui, and other luminous appearances; not excepting the various changes of the atmosphere itself, with regard to rarefaction, gravity, and moisture.

Though all these must, no doubt, somehow depend upon the action of the sun upon the earth, and on the annual and diurnal motion of the latter, yet we do not find the same regularity in meteors that we do in other phenomena of nature. Every succeeding year differs from that which preceded, in a vast number of instances. Sometimes we find a number of years, successively, similar to each other, and another set, quite different, taking place immediately after them. This dissimilarity between the phenomena of different years, may warrant us to conclude that other causes, beside the regular action of the sun, and revolution of the earth, are concerned. Some of these causes may be supposed to be fermentation, and other commotions within the bowels of the earth; but as all fermentation is a regular process, and takes place only in certain circumstances, of which heat is a very considerable one, why is there not annually a certain quantity of this fermentation excited? And why are not regular effects observed in proportion? It does not indeed appear that the immense variety of meteorological appearances can, by any means, be accounted for, but by the interference of some causes in their own nature irregular, that is, capable of such endless variety that no assignable space of time is sufficient to exhaust it. These causes, as they cannot be proved to exist either on the surface of the earth, or in its internal parts, must be sought for in the celestial expanse itself. Sir Isaac Newton supposed the planets to be influenced by the comets, and that from the tails of the latter some of the finer parts of our atmosphere were produced. He even supposed that from these bodies a quantity of water, imagined to be wasted in the various operations of nature, might be supplied. But if it be not unreasonable to suppose that comets answer some such purposes in nature, it is as little unreasonable to think that the planets may influence the atmospheres of one another. That this must be the case is very probable, not only on account of the light they reflect upon one another, but also by reason of their spheres of mutual attraction, which extend an immense way, and are so powerful in the planets Jupiter and Saturn, that they disturb the motions of each other's satellites as they pass.

But besides even these causes, if we allow them to be such, there are others which take place in the immense void between the celestial bodies. That changes do take place in this space, is evident from what is related of the total disappearance of some of the satellites of Saturn, and their sudden re-appearance, without any perceptible change in our atmosphere so as to effect our view of the celestial objects. It may appear ridiculous to think that a change in such distant regions should have any influence

upon the atmosphere of the earth ; but we must remember that if the universe be connected together as one vast system, which we have every reason to believe, it is as impossible that a change can take place in any part without affecting the whole in some degree, as it is impossible to change any part of a clock or watch without affecting the whole movement. But of all the changes that take place in the celestial regions, those which affect the sun seem most likely to produce changes in our atmosphere, and to be the hidden causes of many meteorological phenomena.

That the sun is not exempt from changes is evident from the spots which are seen in his disk. It has been observed in some years that the sun has seemed to lose his influence, and even to the naked eye to appear much dimmer than usual. In such cases it is impossible, but our atmosphere, and even the whole solar system must have been affected ; and not only must the seasons, for the present time, have felt the malign influence of such spots, but the atmosphere itself may have acquired such a disposition as to produce seasons of a peculiar nature for a number of years afterwards. If it be true, according to the hypothesis of some, that the sun is supplied with fuel by comets falling into his body ; it is plain that every new accession of this kind must have a proportionable effect upon all the bodies exposed to his light. If the comets do not perform any such office, still, it is very probable, they answer some purposes to the planets, because they are never seen without the planetary regions ; and though their influence be not immediately perceptible, it is impossible to prove they have none, nor indeed is it probable that they have none, for the influence of any object extends as far as its light, and how much farther we cannot tell. Considering the matter in this view, therefore, there is not a spot that can obscure the sun, a comet that can approach the earth, nor, perhaps, a belt or spot which can take place on Mars, Jupiter, or Saturn, which may not be productive of important changes in our atmosphere, and affect the meteors produced by it in many different ways.

But though these causes may affect the diversity of seasons, it is not from them we must derive the regular phenomena of the atmosphere ; these, undoubtedly, depend on the settled action of light, heat, and the electric fluid. We shall, therefore, first inquire into the nature of these fluids, and then attempt to describe their operations and effects.

The opinions of philosophers concerning the nature of light, may be in general reduced to two. The first of these, deducing the phenomena of vision from the undulations of an elastic fluid ; the second, deriving them from the action of matter emitted from the shining body with immense velocity, moving uniformly in straight lines, and acted upon by other bodies so as to be reflected, refracted, or inflected, by means of forces which act upon it, in the same manner as on other inert matter. This latter sentiment was introduced by Sir Isaac Newton, and supported by him with unanswerable arguments. It is now generally received by the learned, and may be safely considered as possessing the greatest claim to our regard.

The least particle of light, that can be either intercepted alone whilst all the rest are suffered to pass, or that can be let pass alone, whilst all the rest are intercepted, is called a ray of light. Any parcel of rays diverging from a point, considered as separate from

the rest, is called a pencil of rays. Whatever is beheld by the eye, is by opticians called an object. They consider every luminous object as made up of a vast number of minute points, and that each of these points, by an unknown power, sends forth rays of light in all directions, and is thus the centre of a sphere of light extending indefinitely on all sides. A small object, or physical point of an object, considered as propagating light towards a certain part, is sometimes called a radiant, or radiating point. Those rays which proceed from any point, at a very great distance, may be considered as parallel rays, for the greater the distance of the point from whence rays flow, the nearer do they approach a parallel direction. By a medium, in the language of opticians, is meant any pellucid or transparent body, which suffers light to pass through it. Thus water, air, glass, or a diamond, are called mediums. One medium is said to be more dense than another when it contains more matter in the same bulk : thus glass is more dense than water, and water is more dense than air.

Light moves or acts in a straight line, as appears from the shadows which opaque bodies cast, for if the light did not describe straight lines, there would be no shadows ; it is equally plain from light's finding no passage through bent tubes. In consequence of this property of light, a luminous body may be seen from all places to which a straight line can be drawn, without meeting with any intervening obstacle. Wheresoever a spectator is placed with respect to a luminous body, every point of that part of the surface which is turned towards him is visible, each point is, therefore, a radiant point emitting rays in all directions.

Dr. Bradley observed that the eclipses of Jupiter happened 8' 12" sooner than calculated when Jupiter was in opposition to the sun, and 8' 12" later than calculated when he is in conjunction with that luminary. Hence he concluded that light is, in that space of time, propagated as far as from the sun to the earth. The velocity of light being known, we should be able to estimate the magnitude of its particles, if we were in possession of good observations of the effects of their momentum. For example it is found that a ball from a cannon, at its first discharge, flies with a velocity of about a mile in eight seconds, and would therefore arrive at the sun in 32 years, supposing it to move with unremitted velocity. Now light passes in about eight minutes, which is two millions of times faster. But the forces with which bodies move are as their masses multiplied by their velocities : if, therefore, the particles of light were equal in mass to the two millionth part of a grain of sand, we should be no more able to endure their force than that of sand shot point blank from a cannon.

This wonderful minuteness of the particles of light will be farther proved when we consider that if any one make a hole in a piece of paper with a needle, he will see all the objects that are before him be they ever so minute. If a common tallow candle be lighted, and set by night on an high tower, it will illuminate a sphere of a mile diameter, without having its bulk diminished in any sensible degree. Rays of light will pass without confusion through a small puncture in a piece of paper, from several candles in a line parallel to the paper, and form distinct images on a sheet pasteboard placed behind the paper.

The effects produced by bodies on the rays of light are chiefly the following: inflection, reflection, and refraction.

By the inflection of light we are to understand a certain influence of bodies upon it by attraction and repulsion. This is a subject but little understood, as the experiments of Sir Isaac Newton were confessedly incomplete, and succeeding philosophers have done little more than collect a few isolated facts, without being able to form a regular combination of consequences. The laws followed by the powers that inflect the light, and the limits of their action, are yet unknown. To explain a little the nature of this phenomenon, we will recite one or two of the experiments by which it has been discovered. If a beam of the sun's light be admitted into a darkened chamber through a hole of the breadth of a forty-second part of an inch, the shadows of hairs, threads, pins, straws, &c. appear considerably longer than they would be if the light passed by them in straight lines. For example, a hair whose breadth was the 280th part of an inch, being held in the light, at about 12 feet distant from the hole, cast a shadow, which at the distance of four inches from the hair, was the 60th part of an inch broad, that is, about four times the breadth of the hair.

Let a beam of the sun's light be admitted through a hole a quarter of an inch broad: place a sheet of pasteboard, blacked on both sides, at almost three feet from the hole; in the middle of the paste board let there be a hole 3-7ths of an inch square for the light to pass through; behind the paste board fasten the blade of a sharp knife, so as to stop part of the light going through the hole. The knife and pasteboard are to be parallel, and both to be at right angles with the beam. Let a part of the light which passes by the knife's edge, fall upon a white paper at about three feet distance, and there will be two streams of light shooting out both ways into the shadow, somewhat like the tails of comets. Placing another knife with the edge very near, and parallel to the first; if they be distant the 400th part of an inch, the stream of light passing between them will be divided, parting in the middle, leaving a dark shadow in the interval; as the edges approach, the shadow grows broader, and the streams narrower at the inner end, so that the light that is least bent goes to the inner end of the stream, and passes at the greatest distance from the edges. When this distance is about the 800th part of an inch, the shadow begins first, the light which passes at less distance is more bent, and goes to that side which is farthest from the direct line. at length, at the contact of the knives the whole light vanishes, leaving its place to the shadow.

From these, and many other experiments, it is inferred that the rays of light are influenced by some power that turns them out of their direct course; and as that power does not bend the rays into the shadow of the bodies from which the influence is supposed to proceed, but from the shadow, it has been considered as a repulsive power that is strongest at the least distance.

When a ray of light falls upon any body, however transparent, the whole of it never passes through the body, but some part is always driven back or reflected from it. Of that part of the ray that enters, another part is also reflected from the second surface, or that which is farthest from the luminous body. When this part arrives again at the

first surface, part of it is reflected back from that surface, and thus it continues to be reflected between the two surfaces, and to pass backwards and forwards, within the substances of the mediums, till some part of it is totally lost. Beside this inconsiderable quantity however, which is lost in this manner, the second surface often reflects much more than the first, insomuch that in certain positions scarce any rays will pass through both sides of the medium. No body is, therefore, so transparent as to transmit all the rays which fall upon it, nor is any so well fitted for reflection as to reflect them all.

The angle which a ray of light makes with the surface of any body on which it falls, is called the angle of incidence, and the angle which the rays make with the same surface, when reflected from it, is called the angle of reflection. The two angles are always equal to each other: thus for instance, if a ray falling upon a mirror makes an angle of 45°, the angle of its reflection will amount to just the same number of degrees. To make this still plainer, suppose an unruffled pool, which is every way exposed to the rays of the sun, when the sun is exactly level with the horizon, there would be no angle of incidence at all, but its rays would pass just over the top of the water. Let the sun be elevated one degree, and the incident ray would form with the water an angle of one degree, proceeding from the eastern part of the heavens, and the reflecting ray would form an equal angle, directing itself toward the west. If the pole were in a place to which the sun is vertical, the reflecting ray would, in that case, become the same with the incident ray, and be reflected back again towards the vertical point. This equality of the angle formed by the incident ray, with that which is formed by the reflecting ray, is a fundamental principle, which holds good in all cases, and is of the utmost importance in optics.

Before the time of Newton it was universally believed that the rays were reflected by striking against the surface of bodies, as a ball rebounds upon striking against the ground. This opinion is, however, now rejected by the learned. They conceive that if the rays of light were reflected by impinging on the solid parts of bodies, their reflections from solid bodies could not be so regular as they are; for, however polished the smoothest object may seem to our sight and touch, yet it is in fact one continued assemblage of inequalities. Nor in polishing glass with sand, putty, or tripoli, it is not to be imagined that these substances can, by grating and fretting the glass, bring all its least particles to an accurate polish, so that all their surfaces shall be truly plane, or truly spherical, and look all the same way, or compose one even surface. The smaller the particles are, the smaller will be the scratches by which they continually wear away the glass until it be polished; but be they ever so small, they can wear away the glass no otherwise than by grating and scratching, and breaking the protuberances, and therefore polish it no otherwise than by bringing its roughness to a very fine grain, so that the scratches and frettings of the surfaces become too small to be visible. From such a surface it cannot be supposed that rays will be reflected with such uniformity as we usually observe; on the contrary, it is highly probable that, if light were reflected by impinging on the solid parts of glass, it would be scattered as much by the most polished, as by the roughest surface.

It is, therefore a problem, how glass, polished by fretting substances, can reflect light in so regular a manner, and this problem is scarce otherwise to be solved than by saying that the reflection of a ray is not effected by the reflecting body, but by some power of the body which is regularly diffused all over its surface, and by which it acts upon the ray without immediate contact, so that it is reflected before it arrives at the surface. Bodies shining with their own light, are mostly brighter than opaque bodies illuminated by them, for opaque bodies disperse the light falling upon them in all manner of ways; whence, supposing all the light to be reflected, the quantity received by the eye from them, compared with that received from the luminous body, is only as the visible illuminated surface of the opaque body, to the surface of an hemisphere whose radius is as the distance of the opaque body from the eye. Hence arises the amazing disproportion between the light of the full moon, and that of the sun, when elevated to equal heights above the horizon, and otherwise placed in similar circumstances, which is perceived by the most inattentive observer, but when calculated by the learned, has been found to be great almost beyond credibility.

The following extract from Mr. Nicholson will point out an easy method of comparing the light of our two principal luminaries:

"When the moon is visible in the day time, its light is so nearly equal to that of the lighter thin clouds, that it is with difficulty distinguished amongst them. Its light continues the same during the night, but the absence of the sun permitting the aperture of the pupil of the eye to dilate itself, it becomes more conspicuous. It follows, therefore, that if every part of the sky were equally luminous with the moon's disk, the light would be the same as if in the day time it were covered with the above-mentioned thin clouds. This day light is, consequently, in proportion to that of the moon, as the whole surface of the hemisphere is to the surface of the moon, that is, nearly as 90,000 to one."

"When a ray passes out of any medium of a different density, it is affected according to the nature of the medium it enters, and the direction in which it enters it. If it enter a denser medium its velocity is always increased, and, on the contrary, if it enter into a rarer medium, its velocity is always diminished; but in neither of these cases is it drawn from its rectilinear course, unless when it proceeds in an oblique direction. If a ray passes obliquely from a rarer to a denser medium, its motion is not only accelerated, but turned toward the perpendicular; if on the other side it pass from a denser to a rarer medium, its motion is not only retarded, but drawn from the perpendicular. Either of these changes is called refraction. When the ray is refracted it always goes in a rectilinear course, making so many angles as it enters different mediums, unless when the density of the medium either gradually increases, or gradually diminishes, when it takes a curved direction. This is the case with our atmosphere, which increases in density as it approaches the earth."

"The following experiments are easily put in practice, and afford an agreeable elucidation of the doctrine of refraction. Take an empty bason, and at the diameter of the bottom fix marks at a small distance from each other; then take it into a dark room

let in a ray of light, and where this falls upon the floor place your bason, so that its marked diameter may point towards the window, and so that the beam may fall upon the mark most distant from the window. This done, fill the bason with water, and you will observe that the beam, which before fell upon the most distant mark, will now, by the refractive power, be turned out of its straight course, and will fall two or three, or more marks nearer the centre of the bason. Make the water in the bason muddy, but not so much so as to destroy its transparency, which you may easily do by dropping therein a few drops of milk; then fill the room with dust, and the beam of light will be very visible both in its passage through the air and through the water, and you will observe very distinctly three beams; that of incidence, which, in coming through the hole, falls obliquely upon the water; that of reflection from the surface, making the angle of reflection exactly equal to the angle of incidence; and that of refraction, which, from the surface where it was bent, moves in a straight line to the bottom of the bason. All things remaining the same, place a small piece of looking-glass at the bottom of the bason, where the refracted beam falls, and it will thereby be reflected back again through the water; and in passing out of the water into the air, will be again refracted or turned out of its course."

"Another experiment, though very common, gives a clear idea of the power of refraction; place a piece of money at the bottom of a bason, and walk back therefrom till you cannot see the piece of money, then let some water be poured in, and it instantly becomes visible. The eye has not changed its place, but the ray of light has taken a new direction in passing from the water into the eye, and strikes your eye as if it came from the piece of money."

"An object situated in the horizon appears above its true place, on account of the refraction of the rays, which proceed from it in their passage through the atmosphere of the earth. Whether an object be beyond or within the limits of the atmosphere, the effect produced is the same, because the rays which proceed from the object continually enter denser parts of the atmosphere, and are refracted towards the centre of the atmosphere, which is the centre of the earth, and thus describe a curve bending downwards; they cannot, therefore, enter the eye which is placed on the surface of the earth unless they enter the atmosphere at some point above the object, which must, in consequence, appear higher than its proper place. Hence it is that the sun, moon, and stars appear above the horizon when they are just below it, and higher than they ought to be when they are above it; likewise distant hills, trees, &c. seem to be higher than they really are. Further, the lower these objects are in the horizon, the greater is the obliquity with which the rays enter the atmosphere, or pass from the rarer into the denser parts of it, and therefore they appear to be more elevated by refraction: upon which account the lower parts of them are apparently more elevated than the upper. This makes their upper and under parts seem nearer than they are, as is evident from the sun and moon, which appear of an oval shape when they are in the horizon, their horizontal diameter appearing the same length they would do if their rays suffered no refraction, while their vertical ones are shortened thereby."

Light we have hitherto considered as consisting of rays perfectly similar in nature, and subject to the same laws: that this is not, however, the case, has been ably demonstrated by Sir Isaac Newton. We shall first present our reader with a general view of his theory of light and colours, as given by a late ingenious philosophical lecturer, and then offer a slight specimen of the experiments by which he established this opinion. The limits of our work will not permit us to do more, nor do we imagine that more will be required, when it be considered with what universal approbation his theory has been received by the whole body of the learned. Before we transcribe this summary of the doctrines of Newton, it is, however, necessary to remark that when a ray of light is, by passing through glass, or any other medium, more refracted than another ray, it is said to be more refrangible; refrangibility meaning nothing more than a capacity of being refracted.

"Sir Isaac Newton's theory of light and colours is striking and beautiful in itself, and deduced from clear and decisive experiments, and may be almost said to demonstrate clearly, First, That lights which differ in colour, differ also in degrees of refrangibility. Second, That the light of the sun, notwithstanding its uniform appearance, consists of rays differently refrangible. Third, That those rays which are more refrangible than others are also more reflexible. Fourth, That as the rays of light differ in degrees of refrangibility and reflexibility, so they do also in their disposition to exhibit this or that particular colour; and that colours are not qualifications of light derived from refractions or reflections of natural bodies, as was generally believed, but original and connate properties, which are different in different rays, some rays being disposed to exhibit a red colour, and no other, some a green, and no other, and so of the rest of the prismatic colours. (Those colours which are seen in the rainbow, or are made to appear when light is transmitted through a prism, are denominated prismatic colours.) Fifth, The lights of the sun consist of violet making, indigo making, blue making, green making, yellow making, orange making, and red making rays; and all of these are different in their degrees of refrangibility and reflexibility, for the rays which produce red colours are the least refrangible, and those that make the voilet the most; and the rest are more or less refrangible as they approach either of these extremes, in the order already mentioned: that is, orange least refrangible next to red, yellow next to orange, and so on, so that to the same degree of refrangibility there ever belongs the same colour, and to the same colour, the same degree of refrangibility. Sixth, Every homogenial ray considered apart is refracted according to one and the same rule, so that its sine of incidence is to its sine of refraction in a given ratio, that is, every different coloured ray has a different ratio belonging to it. Seventh, The species of colour, and the degree of refrangibility and reflexibility proper to any particular sort of rays, is not mutable by reflection or refraction from our natural bodies, nor by any other cause that has yet been observed. When any one kind of colour has been separated from those of other kinds, it has obstinately retained its colour, notwithstanding all endeavours to bring about a change. Eighth, Yet seeming transactions of any colours may be made when there is any mixture of different sorts of rays, for in such mixtures the component

colours appear not, but by their mutually allaying each other constitute an intermediate colour. Ninth, There are, therefore, two different sorts of colour, the one original and simple, the other compounded of these: and all the colours of the universe are either the colours of homogenial simple light, or compounded of these mixed together in certain proportions. The colours of simple light are, as we observed before, violet, indigo blue, green, yellow, orange, and red, together with an indefinite variety of intermediate gradations. The colours of compounded light, are indifferently compounded of these simple rays, mixed in various proportions; thus a mixture of yellow making, and blue making rays, exhibit a green colour, and a mixture of red and yellow makes an orange; and in any colour the same in specie with the primary ones may be produced by the composition of the two colours next adjacent, in the series of colours generated by the prism, whereof the one is next most refrangible, and the other next least refrangible. But this is not the case with those which are situated at too great a distance; orange and indigo do not produce the intermediate green, nor scarlet and green the intermediate yellow. Tenth, The most surprising and wonderful composition of light is that of whiteness; there is no one sort of rays which alone exhibit the colour, it is ever compounded, and to its composition all the aforesaid colours are requisite. Eleventh, As whiteness is produced by a copious reflection of rays of all sorts of colours, when there is a due proportion in the mixture, so, on the contrary, blackness is produced by a suffocation and absorption of the incident light, which being stopped and suppressed in the black body, is not reflected outward, but reflected and refracted within the body till it be entirely lost."

"The first experiment of Newton for the purpose of investigating the refrangibility of light is thus described by that eminent philosopher: "In a very dark chamber, at a round hole about one-third of an inch broad made in the shutter of a window, I placed a glass prism, whereby the beams of the sun's light, which come in at the hole, might be refracted upwards, towards the opposite wall of the chamber, and there form a coloured image of the sun. The axis of the prism, that is a line passing through the middle of the prism from one end of it to the other end, parallel to the edge of the refracting angle, was perpendicular to the incident rays. About this axis I turned the prism slowly, and saw the refracted light on the wall, or coloured image of the sun, first to descend and then to ascend. Between the descent and ascent, when the image seemed to be stationary, I stopped the prism, and fixed it in that posture. Then I let the refracted light fall perpendicularly upon a sheet of white paper, placed at the opposite wall of the chamber, and observed the figure and dimensions of the solar image formed on the paper by that light. The image was oblong and not oval, but terminated by two rectilinear and parallel sides, and two semi-circular ends."

Sir Isaac then proceeds to describe minutely the distance of the image from the prism, and the arrangement of colours perceived in it, which is exactly the same which takes place in the bow. From the observations which he made on the result of this experiment, he deduces the principal articles of his theory. But not contented with proceeding thus far, he repeated the experiment, and diversified it with a great variety of cir-

cumstances, proceeding in every step with the most exact caution, that he might not miss his way in the pursuit of truth, nor be in danger of deceiving others.

The analogy which has been discovered between the colours exhibited by the prism, and those observed in the bow, naturally leads us to make some enquiries concerning that astonishing and beautiful phenomenon. The rainbow is visible only when the spectator has his back to the sun, and his face to a cloud from which the rain is descending. It is also frequently accompanied by an outer bow, which is called the secondary bow. The colours of the primary bow are vivid, and succeed each other in the order of the prismatic colours. The colours of the secondary bow are fainter, and succeed each other in a reverse order. It has been already stated that light is not to be considered as simple, but consisting of rays that are more or less refrangible, and the difference of colour arises from the difference of the refrangibility of rays. When, therefore, a ray of light from the sun enters a drop of rain, it becomes refracted by passing into a different medium, and is decomposed into its proper colours. When it has arrived at the opposite side of the drop it is reflected, making the angle of the reflection exactly equal to the angle of incidence. On leaving the drop the ray is again refracted, and becomes by that means more decomposed. Every ray that comes from the drop to our eye, has thus been twice decomposed by refraction, and once reflected. Every drop is therefore capable of displaying all the prismatic colours, because the ray which entered it is twice decomposed into all its original colours. These colour-making rays are scattered in different directions, according as they are more or less refracted. To a spectator, therefore, who is placed in a certain direction, the drop appears red; to another, who views it from a different station, it is orange, &c.; but from such as are situated beyond a certain limit, all these beautiful colours entirely vanish. The secondary rainbow is formed by rays which after having been once refracted on entering the drop, strike against a lower part of it, and the angle of their reflection being equal to the angle of their incidence, must necessarily be reflected to the upper part of the drop: here these rays are again reflected, and after having undergone a second refraction, reach the eye of the spectator. The colours of the secondary bow are fainter than those of the first, because, by reason of the transparency of the drop, a large portion of rays are transmitted through its second surface whenever they strike against it, so that but a small portion of rays reach our eye after one reflection, and a still smaller portion after two reflections. The colours of the secondary rainbow are in an inverted order, because that the lower the part of the drop is against which the ray strikes when first reflected, the higher must the part of the drop be against which it strikes, when it is reflected the second time; so that as the most refracted colour must, in one instance, appear the highest, it must in the other appear the lowest.

This may be illustrated by experiments; for if the rays of light fall on the surface of a glass sphere filled with water, they will be refracted to the other side, and there exhibit a coloured spot of refracted light; from this part the rays will be reflected to another part of the lower surface, and there be refracted a second time into the air, and dilated into all the different coloured rays, so that if a person's eye were placed under

such a globe, he would observe all the different colours appear in the globe. Let it be suspended at such a height that it receives the light in the upper part of it, it will then refract it from the lower into all its different coloured rays, forming thereof a circle of different coloured light on the floor resembling the rainbow. Let any one place himself in such a position that the rays of light of different colours may successively fall upon the eye, he will then see all the colours in the globe which before formed the variegated arch on the floor. This is a case exactly similar to the rainbow; for if this globe of water was placed in the heavens, it is evident that the coloured image would be seen through it in the same manner as in this experiment. To illustrate the nature of the second bow, the sun beam must be let fall on the lower part of the globe, any one may then see plainly the coloured spot behind to which it is refracted.

Every one must have observed certain luminous circles which are sometimes seen to surround the sun, moon, planets, and fixed stars. They are termed halos or coronas. Sometimes these circles are white, and sometimes coloured like the rainbow: sometimes one only is visible, and sometime several concentric coronas make their appearance at the same time. Those which have been seen about Syrius and Jupiter were never more than three, four, or five degrees in diameter; but those which surround the sun or moon, have sometimes extended to 30, 40, or even 90 degrees. Their diameter sometimes varies during the time of observation, and the breadth both of the coloured and white circles are very different, viz. of two, four, or seven degrees. The colours of these coronas are more dilate than those of the rainbow; and are in a different order according to their size. In those which Newton observed in 1692, they were in the following order, reckoning from the inside. In the innermost were blue, white, and red; in the middle were purple, blue, green, yellow, and pale red, in the outermost, pale blue, and pale red. Mr. Huygens observed red next the sun, and a pale blue line cut across. Sometimes they are red on the inside, and white on the outside. M. Weidler observed one that was yellow on the inside, and white on the outside. In France one was observed in 1683, the middle of which was white: after which followed a border of red, next to it was blue, then green, and the outermost circle was a bright red. These coronas are very frequently to be seen, especially in America, Holland, and Russia, but they are difficult to be observed, unless the eye be so situated that not the body of the sun, but only the neighbouring parts of the heavens can be seen. Coronas may be produced by placing a lighted candle in the midst of steam in cold weather. Also if a glass window be breathed upon, and the flame of a candle be placed some feet from it, while the spectator is also at the distance of some feet from another part of the window, the flame will be surrounded with a coloured halo. Also, if a candle be placed behind a glass receiver, when air is admitted to a certain degree of density, the vapour with which it is loaded will make a coloured halo round the flame.

A very considerable number of theories have been invented to account for the formation of halos. Des Cartes observed that the halo never appears when it rains; from which he concludes that this phenomenon is accounted for by the refraction of light in the round particles of ice which are then floating in the atmosphere. Gassendi supposes

that the halo is the same with the rainbow, and that all the difference there is between them arises from their different situations with respect to the observer. Dechales embraces a nearly similar opinion, and attributes the paleness of the colours of coronas to the smallness of the drops by which they are formed. Mr. Huygens has recourse to globules of soft snow, rounded by the agitation of the air, and thawed on their outsides by the heat of the sun. M. Marriotte accounts for small coronas by the transmission of light through aqueous vapour, and for those which are of two order of colours, by half thawed pieces of snow, and for the larger coronas, by equi-angular prisms of light. Sir Isaac Newton does not appear to have paid much attention to the subject of halos, but seems to have considered the larger and less variable appearances of this kind as produced according to the common laws of refraction, but that the less and more varied appearances depend upon the same causes with the colours of their plates.

Perhelia, or mock suns, have been seen in different parts of the world, and have not failed to engage the attention of mankind. They are apparently of the same size with the sun, though not always of the same brightness, nor even of the same shape, and when a number appear at once there is some difference in both these respects among them. Externally they are tinged with colours like the rainbow, and many have a long fiery tail opposite to the sun, but paler towards the extremities. They are generally attended with coronas, either coloured or white. A very large white circle parallel to the horizon generally passes through the parhelion; and if it were entire, would pass through the centre of the sun. Sometimes there are arcs of smaller circles concentric to this, touching those coloured circles which surround the sun. They also are tinged with the colours of the rainbow. Seven of these perhelia were observed at one time by Hevelius, at Sedan. They are sometimes visible for four hours together, and are said, in north America, to continue for whole days. It is even asserted by Mr Wales that, at Hudson's Bay, the sun never rises without some of these to attend him.

Philosophers have laboured with great attention to account for these phenomena, but have not hitherto invented any hypothesis that affords general satisfaction. When a theory is discovered which is so serviceable as that of Newton in solving a variety of striking phenomena, it is natural to endeavour to profit by it to the utmost, or to use it as a clue to guide us as far as possible in the mysteries of nature. We now feel desirous to be acquainted with the causes of that endless variety of shades and of colours, which render the objects that every where surrounds us, at the same time distinguishable and pleasing to the eye. Things overlooked by the rest of mankind are often the most fertile in suggesting hints to those who are habituated to reflection. Thus Sir Isaac, to pursue his researches farther, blew a large bubble from a strong mixture of soap and water, and set himself attentively to consider the different change of colour it underwent, from its enlargement to its dissolution. He generally perceived that the thinner the plate of water was which composed the sides of the bubble, the more it reflected the violet coloured ray; and that in proportion as the sides of the bubble were more thick and dense, the more they reflected the red: he therefore was induced to believe, that the colours of all bodies proceeded from the thickness and density of the little trans-

parent plates of which they are composed. As it was not easy to measure the thickness of the bubble which displayed any one prismatic colour, he placed a glass lens, whose convexity was very small, upon a plain glass, as it is evident that these would only touch at one particular point, and, therefore, at all other places between the adjacent surfaces, a thin plate of air was interposed, whose thickness increased in a certain ratio, according to the distance from the place of contact.

He pressed these glasses slowly together, by which means the colours very soon emerged, and appeared distinct to a considerable distance; next to the pellucid central spot made by the contact of the glasses, succeeded blue, green, white, yellow and red. The blue was very little in quantity, nor could he discern any violet in it; but the yellow and red were very copious, extending about as far as the white, and four or five times as far as the blue. The next circuit immediately surrounding these consisted of violet, blue, green, yellow, and red; all these were very copious unless the green, which was very little in quantity, and seemed fainter than the other colours. The third circle of colours was purple blue, green, yellow, and red; in this the purple was more reddish than the violet in the former circuit, and the green was more conspicuous, being as bright and copious as any of the other colours, except the yellow, the red was somewhat faded. The fourth circle consisted of green and red; the green was copious and lively, inclining on the one side to blue, and the other to yellow, but there was neither violet, blue, nor yellow; and the red was imperfect and dirty. Each outer circuit was more obscure than those within, like the circular waves upon a disturbed sheet of water, till they at last ended in perfect whiteness.

As the colours were thus found to vary according to the different distances of the glass plates from each other, Sir Isaac judged that they proceeded from the different thickness of the plates of air, intercepted between the glasses; from whence he concluded that the colours of all natural bodies depended on their component particles.

When the glasses were held between the eye and the window, the centre was perfectly transparent; this spot, therefore, when viewed by reflected light, appeared black, because it transmitted all the rays; and for the same reason it appeared white, when viewed by transmitted light. In comparing the rings produced by transmitted light, with those produced by reflected light, the white was found opposed to the black, the red to the blue, the yellow to the violet, and the green to a colour composed of red and violet: in other words, the parts of the glass that, when looked at, were white, appeared black on looking through the glass; and on the contrary, those which appeared black in the first instance, appeared white in the second; and so of the other colours. When, therefore, the thickness of the particles of a body is such, that one sort of light, or one sort of colour is reflected, another light, or other colour will be transmitted; and therefore the body will appear of the first colour.

A great proportion of the fainter coloured rays are stopped in their passage through the atmosphere, and are thence reflected upon other bodies, while the red and orange rays are transmitted to greater distances. This circumstance explains the blue shadows of bodies, the blue colour of the sky, and the red colour of the clouds, when the sun is

near the horizon. At certain times, when the sky is clear and serene, the shadows cast from opaque bodies have been observed to be tinged with blue and with green. This circumstance results from the minute particles of the atmosphere reflecting the most refrangible rays, the blue and violet, for instance, which occasions a predominance of these colours. The blue colour of the sky is accounted for on the same principles; namely, the copious reflection of the blue rays by the atmosphere, which produces the effect of an arch of that colour, all around us. This is occasionally diversified by the vapours of greater density which reflect the stronger rays.

The coloured clouds in particular, which appear towards the morning and the evening, when the sun is in, or near the horizon, are to be attributed to the same cause. The rays of light traversing an immense extent of the atmosphere, the fainter rays are detached by the repeated reflections of the atmospheric particles; and the stronger rays, as the red, the orange, &c. are permitted to proceed and reach the clouds from whence they are reflected. Agreeable to this theory the sun's light is sometimes so deeply tinctured with the red, that objects illuminated with it frequently appear of a bright orange, or even red. It is observable that the clouds do not, in common, assume their brightest dies, till some time after the sun be set, and that they pass from yellow to a flaming gold colour; and thence, by degrees, to red, which becomes deeper and deeper, till at length the disappearance of the sun leaves them of a leaden hue by the reflection of the blue light from the air. A similar change of colour is observed on the snowy tops of the Alps; and the same may be seen, though less strongly, on the eastern and western fronts of white buildings. What makes the same colours more rich and copious in the clouds is semi-transparency, joined with the obliquity of their situation.

The least parts of all bodies, though seemingly void of transparency when viewed in the gross, will be found, if taken separately, to be in some measure transparent; and the opacity arises from the multitude of reflection caused by their internal parts. There are between the parts of opaque or coloured bodies, a number of spaces, filled with mediums of different density from that of the body; as water between the tinging corpuscles with which any body is impregnated; air between the aqueous globules that constitute clouds and mists, &c. These spaces cannot be traversed by light without refracting or reflecting it in various ways, by which it is prevented from passing on in a straight line, which it would do if the parts were continuous, without any such interstices between them.

Besides opaque and transparent bodies, there are others which possess the property of appearing luminous in the dark: these are called phosphori, and were formerly supposed to be very few in number. The ingenious Mr. Wilson having, however, invented a closet in which he could obtain a degree of dark far exceeding natural darkness, with which we are acquainted, has discovered that almost every body has a phosphoric quality. Bodies retain this property only for a certain time after they are taken out of the light; so that it is evident they shine by emitting rays which they had imbibed when exposed to the day light.

We have described thus largely the nature, effects, and the properties of light, be-

cause of the important benefits of which it is the source. To light we are indebted for the knowledge of the beauty of nature, which it would be impossible to discover by any other means than by sight. Not only the existence of light, but the peculiar circumstances in which it exists, and the laws by which it is governed, display the benevolence of the Creator. The minuteness of its particles prevent us from suffering any ill effects from the velocity of its motion; the inflection it experiences when approaching opaque bodies causes them to be more abundantly enlightned by its rays; to reflection we are indebted to the visibility of the creation: to refraction, for a greater portion of its influence, and a longer duration of the day than we should otherwise enjoy; lastly to the different refrangibility of the solar rays we owe the amazing variety of colours which beautify and distinguish the objects that surround us.

We must begin our enquiry into the nature of heat, the second great agent in producing the phenomena of the atmosphere, by explaining the meaning we would affix to the terms heat and fire. By fire we mean that cause, whatever it is, by which heat is produced; and by heat we mean not merely the sensation which is felt by any animal that approaches a hot body, but the operation of fire by which that sensation is produced.

The opinions of the learned, as to the nature of fire, are, by Mr. Nicholson, reduced to two, that of Boyle, and that of Boerharve. According to the opinion of Boyle heat is produced by a vibrating motion of the parts of bodies among each other, whose greater or lesser intenseness occasions the increase or diminution of the temperature: according to Boerharve, fire is a subtle fluid that easily pervades the pores of all bodies, causing them to be expanded by means of elasticity, or otherwise. The phenomena of heat, says Mr. Nicholson, may be accounted for by either of them, provided certain suppositions be allowed to each of them respectively, but the want of proof, of the truth of such suppositions, renders it very difficult, if not impossible, to decide whether heat (fire) consists merely in motion, or in some peculiar matter. The word quantity applied to heat will, therefore, denote either motion or matter, and may be used indifferently without determining which. The chief advantage which the opinion that heat is caused by mere vibration possesses, is its great simplicity. It is highly probable that all heated bodies have an intestine motion or vibration of their parts; and it is certain that percussion, friction, and other methods of agitating the minute parts of bodies will likewise increase their temperature. Why then is it demanded should we multiply causes by supposing the existence of an unknown fluid, when the mere vibration of parts, which is known to obtain, may be applied to explain the phenomena?

To this it has been replied, that the vibration of parts is an effect, for matter will not begin to move of itself; and if it is an effect, we must suppose a cause for it; which, though we should not call it a fluid, would be equally unknown, and inexplicable with that whose existence is asserted by those who maintain that fire is a fluid. Dr. Crawford asserts that heat is occasioned by a certain fluid, and not by motion alone, as some eminent writers have imagined: because, First, Those who have adopted the hypothesis of motion, could never prove the existence of the motion for which they contended; and though this should be granted, the phenomena could not be explained by it.

second If heat depended upon motion, it would instantly pass through an elastic body; but we all know that heat passes through bodies slowly like a fluid. Third, If heat depended upon vibration, it ought to be communicated from a given vibration, in proportion to the quantity of matter, which is found not to hold true in fact. On the other hand, there are numberless arguments in favour of the opinion that heat proceeds from elementary fire. First, Mr. Locke hath observed, that when we perceive a number of qualities always existing together, we gather from thence that there is really some substance which produces these qualities. Second, The hypothesis of elementary fire is simple, and agreeable to the phenomena. Third, From some experiments made by Sir Isaac Newton, it appears that bodies acquire heat and cold in vacus, until they become of the same temperature with the atmosphere, so that heat (fire) exists in the absence of all other matter, and is therefore a substance by itself.

The opinion that fire is an element by itself is, however, attended with difficulties If fire be supposed a fluid it is impossible to assign any limits to its extent, it must, therefore, pervade every part of nature, and constitute an absolute plenum, contrary to the fundamental principle of the received system of natural philosophy. That it must be omnipresent is evident, because there is no place where bodies cannot be heated ; but if this be admitted, why are not all bodies of equal temperature, excepting only the difference arising from specific densities, which render some capable of containing a greater quantity than others? Why doth not the heat of the torrid zone diffuse itself equally all over the globe, and reduce the earth to a common temperature ? This might require a great length of time, but we do not perceive the least advance towards it. Supposing this objection to be removed, it will be by no means easy to tell what becomes of the heat, which is communicated at different seasons of the year.

In summer the air, the earth, and the water are heated to a certain degree, and on the sun's declining southward the air first loses its heat, whither does it go? It does not ascend into the higher regions of the atmosphere, for these are constantly found colder than the parts below. It does not descend into the earth and water, for these give out the quantity of heat they have absorbed. It does not go laterally to the southern regions, for these are constantly very hot, and ought to impart their heat to those further north, not to receive it from them. How comes it then that the atmosphere seems perpetually to receive heat, without being satiated, or if the heat cannot be found going off either upwards, downwards, or sideways, how are we to account for its disappearance? This difficulty, however, seems to be entirely removed if we consider heat not as occasioned by the mere presence of elementary fire, but as the result of a particular mode of action of that fluid. This motion is not to be considered as a quality inherent in fire, for then would heat be diffused equally through all parts of the universe. We learn, from the experience of every day, that heat is principally distributed by the sun, and that bodies are heated in proportion as his rays fall more or less directly upon them, or continue acting upon them for a longer or shorter time.

The manner in which the phenomena of heat may be solved, and its nature und-

stood, will appear from the following propositions, extracted from a late respectable publication, to which we are indebted for many of the best hints this chapter contains.

1. It is in all cases observed, that when light proceeds in a considerable quantity from a point diverging as the radii of a circle from its centre, there a considerable degree of heat is found to exist, if an opaque body, having no great reflective power, is brought near that point.

2. This action of light, therefore, may be accounted the ultimate cause of heat, without having recourse to any farther supposition, because nothing else beside this action is evident to our senses.

3. If the point from which the rays are emitted is placed in a transparent medium, such as air or water, that medium, without the presence of an opaque body, will not be heated.

4. Another cause of heat, therefore, is the resistance of the parts of that body on which the light falls, to the action mentioned in proposition 1. Where this resistance is weak, as in the cases just mentioned, the heat is either nothing, or very little.

5. If a body capable of reflecting light very copiously, is brought near the lucid point, it will not be heated.

6. A penetration of the light, therefore, into the substance of the body, and likewise a considerable degree of resistance, on the part of that body, to the action of the light, are the requisites to produce heat.

7. Those bodies ought to conceive the greatest degrees of heat into whose substance the light can best penetrate, i. e. which have the least reflective power, and which most strongly resist its action; which is evidently the case with black and solid substances.

8. By heat all bodies are expanded in their dimensions every way, and that in proportion to their bulk, and the quantity of heat communicated to them.

9. This expansion takes place not only by an addition of sensible heat, but likewise of that which is latent. Of this last we have a remarkable instance in the case of snow mixed with spirit of nitre. The spirit of nitre contains a certain quantity of latent heat, which cannot be separated from it without effecting a change in the spirit itself; so that if deprived of this heat, it would be no longer spirit of nitre. Besides this, it contains a quantity of sensible heat, of a great part of which it may be deprived, and yet retain its characteristic properties as nitrous acid. When it is poured upon snow the latter is immediately melted by the action of the latent heat in the acid. The snow cannot be melted or converted into water without imbibing a quantity of latent heat, which it receives immediately from the acid that melts it. But the acid cannot part with the heat without decomposition; to prevent which, its sensible heat occupies the place of that which has entered the snow and liquified it. The mixture then becomes exceedingly cold, and the heat forces into it from all the bodies in the neighbourhood; so that by the time it has recovered that quantity of sensible heat which it has lost, or arrived at the temperature of the atmosphere around it, it will contain a considerable larger quantity of heat than it originally did, and is therefore observed to be expanded in bulk. Ano-

ther instance of this expansive power of heat is the case of steam, which always occupies a much larger space than the substance from which it was produced; and this, whether its temperature be greater or less than the surrounding atmosphere.

10. The difference between latent and sensible heat, then as far as we can conceive is, that the expansive power of the former is directed only against the particles of which the body is composed; but that of the latter is directed also against other bodies. Neither doth there seem to be any difference at all between them farther than in quantity. If water, for instance, hath but a small quantity of heat, its parts are brought near each other, it contracts in bulk, and feels cold. Still, however, some part of the heat is detained among the aqueous particles, which prevents the fluid from congealing into a solid mass. But by a continuation of the contracting power of the cold, the particles of water are at last brought so near each other that the internal latent heat is forced out. By this discharge a quantity of air is also produced, the water is congealed, and the ice occupies a greater space than the water did; but then it is full of air bubbles, which are evidently the cause of its expansion, The heat then becomes sensible, or, as it were, lies on the outside of the matter; and consequently it is easier dissipated into the air, or communicated to other bodies. Another way in which the latent heat may be extricated is by a constant addition of sensible heat. In this case the body is first raised into vapour, which for some time carries off the redundant quantity of heat But as the quantity of this heat is continually increased, the texture of the vapour itself is at last totally destroyed. It becomes too much expanded to contain the heat, which is, therefore, violently thrown out on all sides into the atmosphere, and the body is said to burn or be on fire.

11. Hence it follows that those bodies, which have the least share of latent heat appear to have the greatest quantity of sensible heat; but this is only an appearance, for the great quantity they seem to contain is owing really to their inability to contain it Thus, if we can suppose a substance capable of transmitting heat through it as fast as it received it; if such a substance was set over a fire it would be as hot as the fire itself, and yet the moment it was taken off, it would be perfectly cool, on account of its incapacity to detain the heat among the particles of which it was composed.

12. The heat, therefore, in all bodies consist in a certain violent action of the elementary fire within them tending from a centre to a circumference, and thus making an effort to separate the particles of the body from each other, and thereby to change its form or mode of existence. When this change is effected, bodies are said to be dissipated in vapour, calcined, vitrified, or burnt according to their different natures.

13. Inflammable bodies are such as are easily raised into vapours, that is the fire easily penetrates their parts, and combines with them in such quantities that, becoming exceedingly light, they are carried up by the atmosphere. Every succeeding addition of heat to the body increases also the quantity of latent heat in the vapour, till at last being unable to resist its action, the heat breaks out all at once, the vapour is converted into flame, and is totally decomposed.

14. Uninflammable bodies are those which have their parts more firmly connected,

or otherwise disposed in such a manner that the particles of heat cannot easily combine with them, or raise them into vapour.

15. Heat, therefore, being only a certain mode of action of elementary fire, it follows that the capacity of the body for containing it, is only a certain constitution of the body itself, or the disposition of its particles, which can allow the elementary fire contained in it to exert its expansive power upon them without being dissipated on other bodies. Those substances which allow the expansive power of the first to operate on their own particles are said to contain a great deal of heat, but those which propel it away from themselves upon other bodies, though they feel very hot, yet, philosophically speaking, they contain very little heat.

16. What is called the quantity of heat contained in any substance, if we could speak with the strictest propriety, is only the apparent force of its action, either upon the parts of the body itself, or upon other bodies in its neighbourhood. The expansive force of this elementary fire contained in any body on the part of that body, is the quantity of latent heat contained in it, and the expansive force of the fire exerted upon other bodies which touch or come near it, is the quantity of sensible heat it contains.

17 If what we call heat consist only in a certain action of that fluid called elementary fire, namely, its expansion or acting from a centre to a circumference, it follows, that if the same fluid act in a manner directly opposite to the former, or press upon the particles of a body as from a circumference to a centre, it will then produce effects directly opposite to those of heat, i. e. it will then be absolute cold, and produce all the effects, already attributed to cold.

18. If heat and cold then are only two different modifications of the same fluid, it follows that if a hot body and a cold one are suddenly brought near each other, the heat of the one ought to draw before it a part of the cold contained in the other, i. e. the two portions of elementary fire acting in two opposite ways ought, in some measure, to operate upon one another, as any two different bodies would when driven against each other. When a hot and a cold body, therefore, are brought near each other, that part of the cold body farthest from the hot one, ought to become colder than before, and that part of the hot body farthest from the cold one, ought to become hotter than before.

19. For the same reason, the greatest degree of cold in any body ought to be no obstacle, or at least very little, to its conceiving heat when put in a proper situation. Cold air, cold fuel, &c, ought to become as intensely heated, and nearly as soon, as that which is hotter.

The two last propositions are of great importance. When the first of them is thoroughly established, it will confirm, beyond a doubt, that cold is a positive, as well as heat, and that each have a separate and distinct power, of which the action of its antagonist is the only proper limit, i. e. that heat can only limit the power of cold, and vice versa. De Luc's observations also, mentioned by Dr Cleghorn, affords a pretty strong proof of it; for if the lower parts of the atmosphere are cooled by the passage of the sun's rays at some distance above and it hath been already shewn that they do

not attract the heat from the lower parts; it follows that they must expel part of the cold from the upper regions.

The other proposition, when fully established, will prove that heat and cold are really convertible into one another; which indeed seems not improbable, as we see that fires will burn with the greatest fierceness during the time of intense frosts, when the coldest air is admitted to them, and even in those dismal regions of Siberia, when the intense cold of the atmosphere is sufficient to congeal quicksilver, it cannot be doubted that fires will burn as well as in this country; which could not happen if heat was a fluid, *per se*, and capable of being carried off, or absolutely diminished in quantity, either in any part of the atmosphere itself, or in such terrestrial bodies as are used for fuel.

Before we attempt to ascertain the nature of the electric fluid, it is necessary to explain some terms made use of by writers on electricity.

The foundation of all that is known on this subject is the difference between electric bodies, and such as are not electric. The former may generally be distinguished by their attracting and repelling light substances, which the others cannot be made to do. In whatever way an electric body is made to discover the power of which it is possessed, it is said to be excited. Conductors are bodies which, though they cannot be excited, can yet, in certain circumstances, convey the electric power from one body to another. Electrics are also called non-conductors, because they have the power of stopping the communication from one body to another. When a conducting substance is placed upon an electric, so that any power communicated to it cannot pass, it is said to be insulated. No body is, however, a perfect conductor, or a perfect electric, but partakes in some measure of the nature of both. If the effects of electricity are communicated to any body, it is said to be electrified; if they are inherent in the body itself, it is said to be excited. Electricity is of two kinds, the one called positive, the other negative. The most remarkable difference we can perceive between the positive and negative electricity is, that they attract each other, though strongly repulsive of themselves, that is, two bodies positively electrified, or negatively electrified, repel each other: but one body positively electrified will attract another body that is negatively electrified. These two electricities are sometimes called the vitreous and resinous, as well as the positive and negative electricity.

The list of substances, by which electric phenomena may be produced, is so very extensive, that it may be justly doubted whether all terrestrial matters, minerals and charcoal only excepted, may not be included in the number. Most, however, of those substances, which exhibit the strongest marks of electricity, are enumerated in the following catalogue:

Electric substances.	Quality of electricity.	Substances with which the electric is rubbed.
The back of a cat	Positive	Every substance hitherto tried
Smooth glass	Positive	Every other substance except the back of a cat
Rough glass	Positive	Dry oiled silk, sulphur, or metals
	Neg.	Woollen cloth, quills, wood, paper, sealing wax, white wax, the human hand

Tourmalin	Positive	Amber, or air blown upon it
	Neg.	Diamond, the human hand
Hare skin	Positive	Metals, silk, loadstone, leather, hand, paper, baked-wood
	Neg.	Other fine furs
Black silk	Positive	Sealing-wax
	Neg.	Hare's, weasel's, and ferret's skins, loadstone, brass, silver, iron, hand
White silk	Positive	Black silk, metals, black cloth
	Neg.	Paper, hand, hare's, weasel's skin
Sealing-wax	Positive	Metals
	Neg.	Hare's, weasel's, and ferret's skin, hand, leather, woollen cloth, paper
Baked wood	Positive	Silk
	Neg.	Flannel.

Electric substances may be arranged in four classes, according to the various powers they occasionally exhibit.

1. Those which exhibit a strong and permanent attractive power, of which the most remarkable is silk.

2. For exhibiting the electric phenomena in a very vigorous, though not durable manner, glass is preferable to all other bodies.

3. Those which exhibit electric appearances for a great length of time, and which communicate to conducting bodies the greatest degree of power. Many of these are called negative electrics, of which the most remarkable are amber, gumlac, rosin, sulphur, &c.

4. Those which readily exhibit electric phenomena by heating and cooling, of which the most distinguished is tourmalin.

Though silk was discovered to be an electric substance as early as 1729, it did not attract much attention till 1759, when Mr. Symmer presented the royal society with an account of certain experiments performed with silk stockings. He had been accustomed to wear two pair of silk stockings; a black and a white. When these were put on together no signs of electricity appeared; but in pulling off the black ones from the white, he heard a crackling noise, and in the dark perceived sparks of fire between them. To produce this and the following appearances in great perfection, it was only necessary to draw his hand several times backward and forward over his leg with the stockings upon it.

When his stockings were separated, and held at a distance from each other, both of them appeared to be highly excited; the white stocking positively, the black negatively. While they were kept at a distance from each other, both of them appeared inflated to such a degree, that they exhibited the entire shape of the leg. When two black, or two white stockings were held in one hand, they would repel one another with considerable force, making an angle of 30 degrees. When a white and black stocking were

presented to each other, they were mutually attracted, and, if permitted, would rush together with surprising violence. As they approached, the inflation gradually subsided, and the attraction of foreign objects diminished, but their attraction of one another increased; when they actually met, they became flat, and joined close together like as many folds of silk. When the experiment was made with two white stockings in one hand, and two black ones in the other, they were thrown into a strange agitation, owing to the attraction between those of different colours, and the repulsion between those of the same colour.

When these amazing discoveries had been made with relation to the electricity of silk, the curiosity of several learned men was excited, and they resolved to vary their experiments, in order to ascertain more exactly how far this power extended, and what circumstances were most favourable to the display of its phenomena. Mr. Symmer prosecuted this enquiry with considerable ardour in England, and Cigna, at Turin. They discovered that the nature of electricity depended, in a considerable degree, on the colour and texture of the silk.

Before we inquire particularly into the phenomena exhibited by excited glass, it will be necessary to describe, as briefly as possible, an electric machine. The principal parts of this are the electric, the moving engine, the rubber, and the prime conductor. The electric generally used is either a globe or a cylinder of smooth glass. The most convenient size for a globe is from nine to twelve inches diameter. It is made with one neck, which is cemented to a strong brass cap, in order to adapt it to a proper frame. Cylinders are made with two necks, they are used to the greatest advantage without any axis; and their common size is from four inches diameter, and eight inches long, to twelve inches diameter, and two feet long, which is, perhaps, as large as the workmen can conveniently make them. To give motion to the electric, a wheel is usually fixed on one side of the frame of the machine, which is turned by a winch, and has a grove round its circumference. Upon the brass cap of the neck of the glass globe, or one of the necks of the cylinder, a pulley is fixed, whose diameter is about the third or fourth part of the diameter of the wheel; then a string or strap is put over the wheel and the pulley; and, by these means, when the winch is turned, the globe or cylinder, makes three or four revolutions for one revolution of the wheel. The rubber consists of a cushion of red basil skin, stuffed with hair or flannel, and fastened to a piece of wood well rounded at the edges. To this is glued a piece of Persian black silk, which nearly goes over one half of the cylinder. The prime conductor is nothing more than an insulated conducting substance, furnished with one or more points at one end, in order to collect the electricity immediately from the electric. When the conductor is of a moderate size it is generally made of brass, but when it is very large, then, on account of the price of the materials, it is made of pasteboard, and covered with gilt paper. It is generally made cylindrical; but let the form be what it will, it should be made perfectly free from points or sharp edges. Besides the above-mentioned parts of an electric machine, it has a strong frame to support the electric, the rubber, and the wheel. The prime conductor is supported by stands, with pillars of glass or baked wood.

To promote the accumulation of electricity, certain coated electrics are used, which are called jars, or Leyden phials. They are coated on the inside with tin-foil, to the height of about three inches below the cylindrical part of the glass; and have a wire, with a round brass knob at its extremity, which passes through the middle of a piece of wood, that is used as a stopper to the bottle. Its lower end is usually connected with the inside coating, by means of a piece of chain or slender wire.

When a number of coated jars are placed in such an order that they may be all charged at the same time, and discharged in an instant, they compose an electrical battery. The whole power of electricity, accumulated in them, may be at once exerted upon the substance exposed to the shock, and thus produce surprising effects.

When the cylinder of a machine which has very considerable powers, is whirled in contact with the rubber, without bringing any conducting body near the cylinder, or insulating the rubber, a dark stream of fire seemingly issues from the place of contact, and involves the cylinder in a blue flame, mixed with bright sparks, the whole making a very perceptible whizzing and snapping noise. If the finger is brought near the cylinder, the fire will leave it and strike the finger. Apply the prime conductor, and the light will in a great measure vanish, and be perceptible only upon the points presented by it to the cylinder; but if your finger be now brought near the conductor, you will perceive it struck by a very smart spark. This spark, when the electricity is not very strong, appears like a straight line of fire; but if the machine acts very powerfully, it will put on the appearance of zigzag lightning, throwing out other sparks at the corners, and striking with such force as to give considerable pain. If, instead of the hand, or any part of the human body, the knob of a coated phial be held near the conductor, a vast number of sparks will appear between them, first with a loud snapping noise, but gradually diminishing, until at last it ceases, and pencils of blue flame, intermixed with small sparks, will be thrown out by the phial; and if the latter be still kept near the conductor, it will in a little time discharge itself, with a sudden flash and crack, after which, if the phial has not been broke by the discharge, the sparks from the conductor will begin as before, and the same phenomena be repeated as long as the cylinder is turned, or till the phial breaks. On applying the battery, though the accumulated force of electricity be much greater than in a single phial, the signs of it are much less apparent; and sparks will pass between the conductor and knob, leading to the battery, by reason of the great evaporation from the latter into the air. But here, if one of the jars discharge itself, all the rest are likewise discharged the same moment, and some of them generally broken. A thread, or other light body, suspended near the conductor, will be attracted to a considerable distance, and the force of attraction will be greater or less according to the power of the machine. The electricity will be positive, if the rubber be not insulated, and negative if it be so: and by Mr. Nairne's contrivance of having a conductor connected with the insulated rubber, and another with the cylinder, both kinds of electricity may be had with equal ease. All these phenomena are the more remarkable according to the power of the machine.

Sulphur, gumlac, amber, rosin, baked wood, and other substances of the same class,

are remarkable, not only for the durability of their electric virtue, but for their being excited by heat without any friction. This last property was discovered by Mr. Wilche, who distinguishes it by the name of spontaneous electricity. He melted sulphur in an earthen vessel, which he placed upon conductors, then letting them cool, he poured out the sulphur, and found it strongly electric, but it was not so when it stood to cool upon electric substances. He then melted sulphur in glass vessels, whereby they both acquired a strong electricity, whether placed upon electrics or not; but a stronger in the former case than in the latter; they acquired a stronger virtue still if the glass vessel was coated with metal. In these cases the glass was always positive, and the sulphur negative. It was particularly remarkable that the sulphur acquired no electricity till it began to cool and contract, and was the strongest in the greatest state of contraction, whereas the electricity of the glass was at the same time the weakest; and it was the strongest of all when the sulphur was shaken out before it began to contract, and acquired any negative electricity.

The tourmaline is a kind of silicious earth, found only in Ceylon, Brazil, and Tyrol. That of Ceylon is of a dark brown, or yellowish colour; that of Brazil is blue, green, red, or yellow; and that of Tyrol is by reflected light blackish, by refracted light yellowish, or in thin pieces green. The electrical phenomena which tourmaline exhibits in heating and cooling have been very accurately described by Dr. Priestly. He made use of a very large tourmaline, the property of the late Dr. Heberdeen. The convex side of this stone generally becomes negative, and the other side positive in cooling. When it was heated or cooled on an electric substance, the tourmaline and the other substance were generally found to be possessed of contrary electricities.

Various theories have been formed by philosophers to account for the phenomena of electricity, but none of these have gained so great celebrity as that which bears the name of Dr. Franklin. According to this theory, all the operations of electricity depend on a matter of a kind peculiar to itself, extremely subtile and elastic. Between the particles of this fluid there subsists a very strong repulsion with regard to each other, and as strong an attraction with regard to all other matter. The pores of all bodies are supposed to be full of this subtile fluid; and when its equilibrium is not disturbed, that is, when there is in any body neither more nor less than its natural share, or than that quantity which it is capable of retaining by its own attraction, the fluid does not manifest itself to our senses. The action of the rubber upon an electric disturbs this equilibrium, occasioning a deficiency of the fluid in one place, and a redundancy of it in another. This equilibrium being forcibly disturbed, the mutual repulsion of the particles of the fluid is necessarily exerted to restore it. If two bodies be both of them overcharged, the electric atmospheres repel each other, and both the bodies recede from one another to places where the fluid is less dense. For as there is supposed to be a mutual attraction betwen all bodies and the electric fluid, such bodies as are electrified must go along with their atmospheres. If both the bodies are exhausted of their natural share of this fluid, they are both attracted by the denser fluid, existing either in the at-

mosphere, contiguous to them, or in other neighbouring bodies; which occasions them still to recede from one another, as if they were overcharged.

What gained the greatest reputation to Dr. Franklin's theory, is the easy solution it affords of all the phenomena of the Leyden phial. The fluid is supposed to move with the greatest ease in bodies which are conductors, but with the greatest difficulty in electrics; insomuch that glass is absolutely impenetrable to it. It is, moreover, supposed that all electrics, and particularly glass, on account of the smallness of their pores, do at all times contain an exceeding great and equal quantity of this fluid; so that no more can be thrown into any one part of any electric substances, except the same quantity go out at another, and the gain be exactly equal to the loss.

These things being previously supposed, the phenomena of charging and discharging a plate of glass admit of an easy solution. In the usual manner of electrifying by a smooth glass globe, all the elective matter is supplied by the rubber from all the bodies which communicate with it. If it be made to communicate with nothing but one of the coatings of a plate of glass, while the conductor communicates with the other; that side of the glass which communicates with the rubber, must necessarily be exhausted, in order to supply the conductor, which must convey the whole of it to the side with which it communicated. By this operation, therefore, the electric fluid becomes almost entirely exhausted on one side of the plate, while it is as much accumulated on the other; and the discharge is made by the electric fluid rushing, as soon as opportunity is given it by means of proper conductors, from the side which was overloaded to that which is exhausted.

Agreeably to our proposed plan, we must here remind the reader that there are those who object against this theory, and consider most of the arguments in its defence as taking something for granted which is the object of dispute. We are not, however, able to go the length of this controversy, as it would require more room than it is consistent with our design to allow.

One of the most remarkable effects of electricity is the shock. This is given by discharging the Leyden phial, and was first discovered by accident, by Mr. Cunaeus, in Holland. Observing that electrified bodies, when exposed to the common atmosphere, soon lost their electricity, he imagined that if they were terminated on all sides by original electrics, they might be capable of receiving a stronger power, and retaining it for a longer time. Glass being the most convenient electric for this purpose, and water the most convenient non-electric, they first made this experiment with glass bottles filled with water. No discovery was, however, made, till Mr. Cunaeus happening to hold his glass vessel in one hand, and endeavouring to disengage it from the conductor with the other, was surprised with a sudden shock in his arms and breast.

The news of this discovery produced very different effects on different philosophers, as some, who had received a single shock, declared that no consideration should induce them to venture on another: others were resolved to brave the danger, and not suffer it to deter them from further discoveries, and one of them, in the true spirit of philoso-

phical enthusiasm, wished to die by the electric shock, that his death might furnish an article for the memoir of the academy of science at Paris.

Dr. Watson, with some other ingenious gentlemen, made several experiments, soon after the discovery of the Leyden phial, to ascertain the velocity of the electric fluid. They were not able to discover this with exactness, but found that if two persons held the wire by which it was conducted, they both felt the shock at the same instant, though several miles distant from each other.

Certain German electricians have used several globes at a time, and have, by this means, excited such a prodigious force, that, according to their own account, blood could be drawn from the finger by means of the electric spark, the skin would burst, and a wound appear as if made with a caustic.

Mr. P. Gordon, a Scots benedictine monk, and professor of philosophy at Erfurd, increased the electric sparks to such a degree, that they were felt from a man's head to his feet, so that he could not take them without falling down with giddiness, and small birds were killed by them. This was effected by conveying the electricity with iron wires to the distance of 200 ells from the place of excitation.

It is scarcely possible to compare the phenomena of electricity with those which are displayed by the loadstone, without suspecting that they are produced by causes which are either perfectly the same, or nearly similar in their kind. If either of these suppositions should be proved to be consistent with truth, it may be reasonably expected that such a discovery would give us some important information respecting the electric fluid. The principal phenomena of the loadstone are the following:

1. A magnet, whether natural or artificial, attracts iron, and all substances which contain it in its metallic state. The semi-metal called nickel, and perhaps some others, are attracted by the magnet, though freed from iron as much as possible. The ores of lead, tin, and copper, zinc, bismuth, and cobalt, but especially their ores; sand, amber, and the ashes of animal or vegetable bodies; the ruby, the chrysalite, and tourmalin, but especially the emerald and garnet, are subject to the influence of magnetism. The opal is attracted but weakly, and the diamond, amethyst, topaz, and chalcedony, together with the semi-metals antimony and arsenic, are not attracted at all. How small a quantity of iron will give a substance this property is evident from the following experiment related by Mr. Cavallo. "Having chosen a piece of Turkey stone, which weighed above an ounce, I examined it by a very sensible magnetic needle, but did not find that it was affected in the least. A piece of steel was then weighed with a pair of scales, which would turn with the twentieth part of a grain, and one end of it drawn over the stone in various directions. After this operation, the steel was again weighed, and found to have lost no perceptible part of its weight; yet the Turkey stone, which had acquired only this very small quantity of steel, now affected the magnetic needle very sensibly."

2. If a magnet be suspended by a thread, nicely placed on a pivot, or set to flo at in a bason of water, it will turn one, and constantly the same side, nearly towards the north pole of the earth, the other, of course, turning towards the south. Hence these parts

of the magnet have been called its poles, taking the designation of north and south from those parts of the world towards which they turn. This property is called the polarity of the magnet, and when it is in the act of turning itself into this position, it is said to traverse. A plane drawn perpendicular to the horizon through both poles of the magnet, after it has turned itself, is called the magnetic meridian; and the angle it makes with the meridian of the places is called the declination of the magnetic needle. This is what is called the variation of the compass, and has occasioned so much dispute both among navigators and philosophers. It differs considerably in different parts of our globe, and is observed to have a progressive motion towards the west.

3. When the north or the south poles of two magnets are placed near to each other, they repel; but a north and south pole attract each other.

4. A magnet placed in such a manner as to be entirely at liberty, inclines one of its poles to the horizon, and, of course, elevates the other above it. This property is called the inclination or dipping of the magnet, and is most conspicuous in artificial magnets or needles, which may be accurately balanced before the magnetic virtue is imparted to them.

5. By proper management any magnet may be made to communicate its virtue to a piece of steel or iron, which virtue it will retain for a longer or shorter time, according to circumstances.

That there is an affinity between magnetism and electricity, appears in some degree evident from the following circumstances:

1. Electricity is of two kinds, positive and negative, each of which repels its own kind, and attracts the opposite. In magetism the north and south poles do the same; each being repulsive of its own kind of magnetism, and attracting the opposite.

2. In electricity, whenever a body, in its natural state, is brought near an electrified one, it becomes itself electrified and possessed of the opposite electricity, after which an attraction takes place. In like manner, when a piece of iron or steel is brought within the influence of a magnet, it becomes itself possessed of a magnetism contrary to that which the magnet possesses, and is of course attracted.

3. One sort of electricity cannot be produced without the other, neither is it possible to produce one kind of magnetism without the other also.

4. The electric power may be retained by certain substances, as amber, glass, &c. but easily pervades other substances, which are therefore called conductors. Magnetism has a similar conductor in soft iron, for, by means of it, the virtue may be extended farther than can be done without it; at the same time that the iron itself loses all magnetic power the moment it is separated from the magnet. Hammered iron, cast iron, and steel, perform a part analagous to that of electrics; for the virtue does not easily pervade them, but is retained, and may be communicated by them to unmagnetic pieces, in like manner as the electric virtue may be communicated to bodies by means of an excited electric.

5. The electric virtue exerts itself most powerfully on points which are found to carry

it off, or receive it in vast quantities. In like manner a magnet will hold a piece of iron more powerfully by a corner, or blunt point, than by a flat surface. On sharp points, indeed, the magnet has but little hold, by reason of the deficiency of surface.

6. As it is possible to superinduce the negative and positive electricities upon one another; so in magnetism it is possible to do the same. The differences between electricity and magnetism are not less remarkable than the instances in which they agree. The magnetic power affects none of our senses, and most perceptibly at least attracts only iron; while electricity attracts and repels bodies of every kind indiscriminately. The electric virtue resides on the surface, but that of the magnet pervades the whole substance. A magnet loses nothing of its power by communicating its virtue to other bodies, but electricity always does; and lastly, the magnetic virtue is permanent; whereas that of electricity, without the greatest care, is exceedingly perishable, and capable of being dissipated.

To decide this question concerning the identity of electricity with magnetism, recourse was had to the great machine in Teylor's museum at Haerlem. Needles were made out of watch springs, of three, and even six inches in length, and likewise steel bars, nine inches long, from a quarter to half an inch in breadth, and about the twelfth part of an inch in thickness. When any one of these bars or needles was placed horizontally in the magnetic meridian, whatever way the shock entered it, the end of the bar that stood toward the north acquired the north polarity, or the power of turning toward the north, when freely suspended, and the opposite end acquired the south. If the bar, before it received the shock, had some polarity, and was placed in its poles contrary to the usual direction, then its natural polarity was always diminished, and often reversed, so that the extremity of it. which, in receiving the shock, looked towards the north, became the north pole, &c. When the bar or needle was struck, standing perpendicularly, its lowest end became the north pole, in any case, even when the bar had some magnetism before, and was placed with the south pole downwards. All other circumstances being alike, the bars seemed to acquire an equal degree of magnetic power, whether they were struck whilst standing horizontally in the magnetic meridian, or perpendicular to the horizon. When a bar or needle was placed in the magnetic equator, which ever way the shock entered it, it never gave it any magnetism: but if the shock was given through its width, then the needle acquired a considerable degree of magnetism, and the end of it which laid towards the west became the north pole, and the other end the south pole. If a needle or bar, already magnetic, or a real magnet, were struck in any direction, its power was always diminished. When the shock was so strong, in proportion to the size of the needle, as to render it hot, then the needle generally acquired no magnetism at all, or very little.

By the same machine experiments were made to determine the identity of the electric fluid with fire. As not only combustible substances have been fired, but wire melted, metals calcined, and even the calces revitrified by means of electricity, many had been induced to believe that the electric fluid and fire act upon bodies in a similar manner.

Dr. Van Marum caused wires of different metals to be drawn through the same hole, of one-thirtieth part of an inch in diameter, and observed how many inches of each could be melted by the explosion of his battery, taking care, in all these experiments, to charge to the same degree. The results were as follows: of lead he melted 120 inches; of tin 120 inches; of iron 5 inches; of gold $3\frac{1}{2}$ inches; of silver, gold, and copper, not quite a quarter of an inch. These several lengths of wire of the same diameter, melted by equal explosions, indicate, according to our author, the degree in which each metal is fusible by the electrical discharge, and if these be compared with the fusibility of the same metals by fire, a very considerable difference will be observed. According to the experiments of the academicians of Dijon, to melt tin required a heat of 172° of Reumer's thermometers; lead 230°; silver 450°; gold 563°; copper 630°; iron 690°. Thus tin and lead appear to be equally fusible by electricity, but not by fire; and iron, which by fire is less fusible than gold, is much more so by the electric explosion. From these, and other experiments, Dr. Van Marum concludes, that in melting metals, the electrical fluid acts upon them in a manner very different from the action of fire, and that the supposed analogy between these two powerful agents cannot be proved either from the fusion of metals, or of the combustible substances.

Before we dismiss the subject of electricity, we shall present the reader with a brief summary of the opinions of two men of considerable eminence in the literary world. The ingenious writer in the Encyclopedia Britannica, to whose observations we are indebted for a great part of the materials of this chapter, delivers his sentiments nearly in the following words: "Electricity is derived into the earth and atmosphere from the sun. The vast quantity of light which continually comes from the sun must, of necessity, the greater part of it at least, be absorded by the earth. It is impossible to remain there, as there is a continual succession of new qualities coming from the sun. It does not, however, appear in its natural state of fire or light, unless when it receives a new motion similar to what it had when proceeding from the sun. The solar light never burns but when it is either diverging from a point, or converging towards one, and passes at the same time through a resisting medium. In similar circumstauces, the electric fluid is found to burn. It is admitted that we can never produce electric fire without, at the same time, producing a violent shock exceedingly different from the burning of a common fire. The reason assigned for this is, that we cannot produce a divergence of the electric fluid without, at the same time, giving it such a direction that its impetus becomes perceptible."

The following is given by Dr. Gregory, as a recapitulation of what Mr. Brisson considers as fundamental principles, confirmed, he says, by his own experiments, seconded by those of other philosophers.

"The electric fluid is the same in essence with that of light and heat, but combined with a substance which affects the organs of scent."

"When bodies are electrified by glass, they furnish tufts or pencils of light; but if electrified by sulphur or resinous substances, they only produce points or sparks of

light; bodies presented to those electrified by glass, produce only luminous points, while those which are presented to bodies which are electrified by sulphur, produce beautiful pencils or tufts of light."

"To electrify bodies by communication, it is necessary to insulate them; the substances the most proper for this purpose are those which electrify the best by friction."

"Glass, though it electrifies very well by friction, electrifies also by communication, even without any preliminary preparation, yet it is very proper to insulate."

"Electrical phenomena are not produced entirely from the bodies upon which the electrifying machine acts; the adjacent bodies or substances contribute towards their production."

"The energy of the electric virtue is augmented, in conductors, more by increase of surface than by an augmentation of the mass."

"Electrified bodies adhere one to another, so that they cannot be separated without a considerable effort, as was exemplified in the case of two silk stockings of various colours."

"Electricity accelerates the evaporation of liquors, and the perspiration of animals."

"The pencils or tufts of light, which are seen at the extremities or angles of electrified bodies, are always composed of divergent rays when they pass in the air; but if a *non-electric* or conducting body is presented to them, they lose a great deal of their divergency; their rays sometimes become even convergent, in order that they may approach towards that body which is more permeable than the air; and if they are made to pass into a vacuum, they will assume the form of a large branch of light nearly cylindrical, or in the form of a spindle."

"The spark which shines between two bodies is capable of setting combustible matters on fire."

"The similarity between electricity and lightning, is not merely supposed, but known, as almost every experiment has been performed by lightning which can be performed by the electric fluid. It is in consequence of this discovery, that long rods of iron have been set up to protect buildings from the danger of strokes of lightning."

Having employed so much of our time in investigating the nature of the three great agents of the formation of meteors, light, heat, and the electric fluid, it now becomes necessary to trace their combined operations, and describe the phenomena they produce in the atmosphere. By the atmosphere is understood that whole mass of fluid which surrounds the earth a considerable distance. When distinguished from the grosser vapours it is denominated air.

Air, though in most cases imperceptible either to the sight or to the touch, may be easily proved to be matter, by the following experiments:

Throw a small piece of cork into a cistern of water, and cover it with an empty glass tumbler, held all the time in an upright position, with its bottom upwards. The cork still continues to float on the surface of the water in the inside of the glass, and it will most distinctly show whereabouts that surface is. It will thus be seen that the water within the glass has its surface considerably lower than that of the surrounding water,

and however deep we immerge the glass, we shall find that the water will never rise in the inside of it so as to fill it. There is, therefore, something already within the glass, which prevents the water from getting into it, manifesting in this manner the most distinguishing property of matter, that of hindering other matter from occupying the same place at the same time. Take a smooth cylindrical tube shut at one end, and fit a plug or cork to its open end, so as to slide along in it, but so tightly as to prevent all passage by its sides; and if the plug be soaked in grease, we shall find that no force whatever can push it to the bottom of the tube. There is, therefore, something within the tube which prevents, by its impenetrability, the entry of the plug, and therefore possesses this characteristic of matter.

If we endeavour to move a large fan with rapidity, a very sensible motion is perceived, a very sensible force must be exerted, and a very sensible wind is produced, which will agitate the neighbouring bodies. It is, therefore, justly concluded, that this motion is possible only in consequence of having driven some obstructing substance out of the way, and that this impenetrable, resisting, moveable, impelling substance is matter.

Not only is air material, but a species of matter that has a certain degree of weight. Hence it is that the air always accompanies this globe in its orbit, surrounding it to a certain distance, under the name of the atmosphere. It is also the gravity of the air that supports the clouds and vapours which are continually observed. To this cause it is also to be ascribed that balloons and soap bubbles rise and float in the air, as a piece of cork rises in water, and floats on its surface. Vessels may be exhausted of the air they contained, and then weighed, when they will be found to have lost a portion of their weight equivalent to about an ounce and a-fifth avoirdupois, for every cubic foot of air they contained.

The tendency of our atmosphere towards the centre of the earth is called its gravity, and its operation on the bodies which are exposed to its influence, pressure. As the air is a fluid, it exerts this pressure not downwards only, but in every direction. It is owing to the pressure of the atmosphere, that two surfaces, which accurately fit each other, adhere together with considerable force. A large lens or speculum, ground on its tool till it becomes very smooth, requires more than any man's strength to separate it directly from the tool. If the surface is only a square inch, it will require 15 pounds to separare them perpendicularly, though a very moderate force will make them slide along each other. But this cohesion is not observed, unless the surfaces are wetted or smeared with oil or grease; otherwise the air gets between them, and they separate without any trouble. That this adhesion is owing to the atmospheric pressure, is evident from the ease with which the plates are separated from each other in an exhausted receiver. To the same cause we must ascribe the very strong adhesion of snails, limpets, periwinkles, and other univalve shells to the rocks. The animal forms the rim of its shell so as to fit the shape of the rock to which it intends to cling. It then fills its shell, if not already filled by its own body, with water. In this condition it is evident that we must act with a force equal to 15 pounds for every square inch of touching surface before we can detach it. But if we expose a snail, adhering to a stone in the ex-

hausted receiver of an air pump, we shall see it fall off with its own weight. It is owing to the same cause that a full cask will not run by the cock, unless a hole be opened in some other part of the cask. In like manner a tea-pot must have a small hole in its lid to ensure its pouring out the tea.

Another important effect to be ascribed to the gravity of the atmosphere is the rise of water in pumps and syphons, though ascribed, by most philosophers before Galileo, to a fancied abhorrence of nature to a vacuum. Galileo reasons as follows: The heavy air rests on the water in the cistern, and presses it with its weight. It does the same with the water in the pipe, and therefore both are on a level: but if the piston, after being in contact with the surface of the water, be drawn up, there is no longer any pressure on the surface of the water within the pipe; for the air now rests on the piston only, and thus occasions a difficulty in drawing it up. The water in the pipe, therefore, is in the same situation as if more water were poured into the cistern, that is, as much as would exert the same pressure on its surface as the air does. In this case we are certain that the water will be pressed into the pipe, and will poise up the water already in it, and follow it, till it is equally high within and without. As the rise of the water was the effect of the pressure of the atmosphere, he asserted that it would be raised and supported only to a certain height. Let, said he, a very long pipe, shut at one end, be filled with water, and let it be erected perpendicularly, with the close end uppermost, and a stopper at the other end, and then have its lower orifice immersed in a vessel of water, the water will subside in the pipe, upon removing the stopper, till the remaining was balanced by the pressure of the external air. This experiment was tried, not many years after his death, with water, wine, oil, and several other fluids, but applied to the most useful purpose by the great Toricelli, who, by making use of mercury, became, in fact, the inventor of the barometer.

The doctrine of the gravity and pressure of the atmosphere being thus proved, in the most satisfactory manner, we may draw from it a number of legitimate consequences. In the first place, we are furnished with an exact measure of the pressure of the atmosphere, which is precisely equal to the weight of the column of water, wine, mercury, &c. it will support. Now it is observed that water is supported at the height of nearly 32 feet: the weight of this column is exactly 2,000 pounds avoirdupois on every square foot of base, or about 14 pounds on every square inch. A nearly similar conclusion may be drawn from the column of mercury, which is more than 29 inches high, when balanced by the pressure of the air. The globe must, therefore, sustain a pressure equal to the whole weight of a body of mercury of this height, or of a body of water to the height of 32 feet, and all bodies on the surface of the earth must sustain a part of this in proportion to their surfaces.

A middle sized man must, therefore, sustain a weight of air amounting to several thousand pounds. This would be absolutely incredible, were it not for the following considerations:—First, This pressure is equal on all sides, and effects alike the whole surface of the body. Second, There is a pressure of air within the body which serves to counterbalance the pressure of the air from without. The air is the element in which

we have always lived, and therefore feel no more inconvenience from it than fishes experience from the still greater pressure of the water.

In a few years after the death of Galileo, philosophers became familiar with the weight of the air, and considering it as the vehicle of clouds and vapours, they noted with care the connection between the weather and the pressure of the air, and found that an increase of pressure, was attended with fair weather, and a diminution of it, with rain and mist. Hence the barometer came to be considered not only as a measure of the weight of the air, but also as indicating, by its variations, changes of weather.

In the next place, we may conclude that the pressure of the air will be different in different places, according to their elevation above the surface of the ocean; for if air be a heavy fluid, it must press in some proportion to its perpendicular height. Hence we may derive a method of measuring the height of mountains. Having ascertained, with great precision, the elevation corresponding to a fall of one-tenth of an inch of mercury, which is nearly 90 feet, we have only to observe the length of the mercurial column at the top and bottom of the mountain, and to allow 90 feet for every tenth of an inch. This method has been practised with great success, though it requires a knowledge of many other qualities, which we shall now proceed to explain.

That air is a fluid no one will deny, who has in the least degree considered the phenomena of winds, or contemplated the ease with which we perform every motion, notwithstanding the pressure of the atmosphere on every side. All fluids are elastic and compressible, but the air possesses these qualities more than any other fluid does, which fall under our cognizance. The compressibility of the air may be easily evinced by our squeezing a bladder that has been filled with it, or more learnedly, by the various experiments performed by the condenser. These bring into view another, and the most interesting property of air, its elasticity. For when we have squeezed the air in the bladder, &c. into less room, we find that the force with which we compressed it is necessary to keep it in this bulk, and that if we cease to press it together, it will swell out and regain its natural dimensions. This distinguishes it essentially from such a body as a mass of flour, salt, or such like, which remain in the compressed state to which we reduce them. A ball discharged from a pop-gun derives all its force from the pressure of the air during its expansion from its compressed state.

Various experiments have been made by the learned to discover the utmost possible compressibility of air, which have succeeded so far as to exhibit air in a state a thousand times denser than that in which it commonly exists. Hence it appears that air is essentially different from water, as it can be compressed to so great a degree, and yet retain its nature. The limit of the expansibility of the air is also unknown, the utmost exertions of the air pump not being able to produce a perfect vacuum.

Philosophers have discovered that the atmosphere is composed of a considerable variety of elastic fluids, which, though they are usally comprehended under the denomination of air, differ many of them essentially from each other. An elastic fluid, when considered as distinct from the atmosphere in general, is called, by French chemists, a gas. We shall here collect, from Dr. Gregory's Economy of Nature, a brief account

of the most important of these, and the use which they serve in producing the phenomena of nature.

Those of which we shall here treat are oxygen gas, azotic gas, carbonic gas, hydrogen, nitreous gas, and hepatic gas.

The first of these was originally termed *dephlogisticated* air, a name given to it by Dr. Priestly, from supposing it free from phlogiston or inflammable matter; when it was found essential to animal life, it obtained the name of *pure* or *vital* air; and when it was found to contribute essentially to ignition, and the other phenomena of fire, it was termed *empyreal* air; but the French chemists having discovered that it is the substance which imparts the acid character to all the mineral and vegetable acids, have distinguished it by the name of oxygen gas.

Oxygen, or the base of oxygen gas, is naturally or artificially combined with a great variety of substances. From some of these it may be detached by the simple application of heat, since it has a remarkable attraction for the matter of fire, with which, when it unites, it becomes expanded, and assumes the form of gas, or air.

The substances from which it may be most easily extracted, by means of heat, are red lead, calcined mercury, nitre, and manganese.

The properties or functions of this fluid are some of the most important in nature; nor, except caloric or heat, is there any natural agent more universal or more active.

1. It is essential to combustion; nor do we know of any process by which flame can be supported without a supply of oxygen gas, or empyreal air.

2. In certain proportions it is absolutely necessary to sustain animal life; so that the whole animal creation may be said to depend upon this fluid for their existence.

3. It is what gives the acid character to all mineral and vegetable salts, the bases of which are found to be entirely insipid till combined with oxygen.

4. The calcination of metals is altogether effected by their union with oxygen. Thus, for most of the mineral pigments, and a very numerous class of medicines, we are indebted to this useful element.

5. It forms a constituent part of that necessary fluid, water, which consists of 85 parts of oxygen, and 15 of hydrogen, or the basis of inflammable air.

Oxygen gas, or air, is more elastic than common air; it exceeds it also in specific gravity, for the proportion between pure and common air is as 160 to 152.

If the limits of this work permitted, or if the researches of philosophers had furnished us with sufficient materials, it would be a most pleasing speculation to trace the wisdom of providence in the very ample means which he has provided for supplying us with this necessary fluid. It is evident that immense quantities of it are, by the various processes of combustion, destroyed, or, to speak more philosophically, condensed, and by its union with inflammable matter, formed into water. This water is again raised into the atmosphere in the form of vapour; it falls in dew or rain upon the leaves of plants, and these, by the genial action of the solar rays, a new decomposition again takes place, and every branch, every leaf, every blade of grass, is occupied in the beneficial function of

again impregnating the atmosphere with this salutary fluid. The quantities too, which are absorded by the calces of metals, must be immense; but by the various processes for the smelting and reduction of these metals, the oxygen is again set free, and a fresh supply is produced. Even the air which is injured by respiration, is doubtless again, by a variety of modes, the greater part concealed from our view, purified, and rendered once more fit for use, since fixed in air, in a disengaged state, is, comparitively speaking, but a rare substance in nature, and since there is reason to suppose that many of the carbonic bodies may be recruited also by its decomposition. Ignorance of nature is proverbially the sole source of atheism; and who can contemplate this astonishing revolution, this circulation of benefits, and not smile at the extreme folly of the man who can suppose these appointments established without intelligence or design?

The azotic gas is called, by Lavoisier, mosete, and, by Dr. Priestly, flogisticated air. It is always found to remain after a quantity of common air has undergone the respiration of animals, the combustion of bodies, or putrefaction; because in all these cases the pure air is absorded or condensed. Azotic gas is equally invisible with common air, and something more elastic. Various substances are productive of this air; and Mr. Fourcroy has discovered that the air bladders of fishes, and particularly of the carp, are full of it; and that it may be collected by breaking them under glass vessels inverted in water. The air, however, which is contained in the bladders of marine plants, is found to be considerably purer than atmospheric air. In speaking of the properties of this fluid, it is proper to remark,

1. That azotic gas affords no sign of acidity, not being capable of turning the blue colours of vegetable red.

2. It does not precipitate lime dissolved in water; for if a small quantity of lime water is put into a tube filled with this gas, it will remain clear and limpid; there will be neither lime precipitated, nor chalk formed, which evinces that it is radically different from fixed or carbonic acid air.

3. Another property of this gas is that of suddenly extinguishing substances on fire, and killing animals which are plunged into it. This may be proved by introducing an animal, or a burning candle, into a vessel full of this gas; the animal will be suddenly suffocated, and the candle instantly extinguished.

4. Azotic gas is rendered respirable by vegetables, which in certain circumstances, furnish vital air. This property is probably owing to their retaining the hydrogen of the water which they absorb, while they part with the oxygen. There is no doubt that azotic gas is really a constituent principle of the atmosphere; for if seventy-three parts of it are mixed with twenty-seven of pure air, an air will be produced resembling that of the atmosphere, and respirable as that is.

Carbonic or fixed air has for its basis the matter of coal, or, more properly charcoal. It may be produced by the fermentation of liquors, and the respiration of animals, by the burning of coally matter, by the action of acids on calcerious earths, and by the application of heat only from lime, chalk, and magnesia.

*

In breweries there is always a stratum of fixed air on the surface of the fermenting liquor, reaching as high as the edge of the vats; and it is owing to the production and elasticity of fixed air, that fermenting liquors, when put into close vessels, are often known to burst them with great violence.

This gas has been kown to miners by the name of choak damp, so called from its fatal suffocating effects; and its properties may be enumerated in few words. First, It extinguishes flame. Second, It is fatal to animal life. Third, it is heavier than common air. Fourth, From its acid character it resists putrefaction. Fifth, It renders alkalies, &c. mild. Sixth, Water, under the common pressure of the atmosphere, and at a low temperature, absorbs somewhat more than its bulk of this gas, and in that state constitutes a weak acid, rather agreeable to the taste, whence fixed air is a constituent principle in most mineral waters; indeed the water of springs and rivers is seldom free from it. Seventh, It is also a constituent principle of all fermented liquors.

To that fluid, which we term inflammable air, the French chemists have given the name of hydrogen gas, because its basis is the peculiar constituent part of water; but what this basis may be in its nature, whether simple or compound, is at present unknown, because it cannot be separated from the heat or caloric which gives it the aerial form, without fixing it in another substance.

Let water pass drop by drop through the barrel of a gun, while it remains red hot amidst burning coals; let a crooked tube, placed at the end of this iron, and bent so that it may be passed into a glass vessel full of water, inverted in the pneumatic apparatus. There will then pass into the glass vessel an aeriform fluid, which is inflammable air or hydrogen gas.

This gas, as well as fixed air, was long known to miners before it was noted by philosophers; and among the colliers, and other workmen of that class, it obtained the name of the fire damp. It is, however, seldom found pure in mines or coal works, but is generally combined with sulphureous matter, or what is called hepatic gas, or with carbonic acid air; and this admixture varies its specific gravity, and in general renders it something heavier than pure inflammable air. The fire damp generally forms a whitish cloud in the upper part of the mine, and appears in something of a globular form; from its levity it will not mix with the atmospheric air, unless some agitation takes place, and it is disposed to lodge in any little cavity in the superior part or roof of the mine. When it appears in this form, the miners generally set fire to it with a candle, lying at the same time flat on their faces to escape the violence of the shock. It will not, however, take fire, unless in contact with atmospheric air, for the obvious reason, that a mixture of oxygen gas is necessary to its inflammation. The danger arises entirely from its inflammability on the approach of any ignited body, for when the fire damp consists of pure inflammable air, the explosion is like that of gun powder; but when it it is mixed with carbonic acid, it burns with a lambent flame. The easiest and safest method, therefore, of clearing the mine from this formidable fluid, is by leading a long pipe through the shaft of the mine to the ash pit of a furnace, whence the inflammable vapour will be constantly attracted to feed the fire.

It is on account of its lightness that hydrogen gas has been most frequently employed in filling balloons.

Nitrous air is as invisible and transparent as common air; in its smell it resembles nitrous acid. Though this kind of air extinguishes flame, it may, by certain processes, be brought to such a state, that a candle will burn in it with an enlarged flame, and it then becomes what Dr. Priestly calls *dephlogisticated nitrous air*. Its supporting flame in this instance evidently depends on the large quantity of oxygen which enters into its composition.

Of all the different species of air, this seems the most noxious to animal life. Insects, which can bear azotic and inflammable air, will die immediately upon their being immersed in this. Even fishes will not live in water impregnated with it.

Hepatic gas is composed of sulphur and hydrogen in certain proportions. It is very soluble in water, which it converts into a state perfectly resembling that of sulphureous mineral waters. The smell of this air is very unpleasant, and its vapour has a very disagreeable effect upon many metallic substances, particularly silver, lead, copper, &c. destroying their colour, and rendering them almost black. It is extremely pernicious in respiration.

In one hundred parts of atmospheric air there are contained about seventy-two parts of azotic gas to twenty-seven of oxygen, besides one part of carbonic acid gas or fixed air, which is generally found united with them; or, to speak in round numbers, in order to be better understood, we may say that the air of our atmosphere contains rather better than one-fourth of pure or respirable air, and that the remaining three-fourths are unfit for respiration, and equally unfit for combustion, since the same fluid which supports flame is found equally to contribute to the support of animal life.

Extraordinary as this mixture of fluid in the atmosphere may appear, it is essential to our health, and even our existence, and demonstrates no less the wisdom and goodness of providence, than all the other beneficial appointments. This pure vital air, says Brison, so wholesome, so necessary in a moderate quantity, like spirituous liquors, or salutary medicines, must be used with precaution, and would be fatal in the excess. If we were indeed to breathe pure or oxygen air, without any mixture or alloy, we should infallibly perish by the unnatural and fatal accumulation of heat in our bodies; if, again, the whole atmosphere was composed only of vital air, combustion would not proceed in that gradual and moderate manner which is necessary to the purposes of life and society; and even iron, and the metals themselves, would blaze with a rapidity which would carry destruction through the whole expanse of nature.

The air of our atmosphere is, however, not so simple a substance as to be formed only of two ingredients. Besides the small portion of carbonic gas or fixed air which it contains, equal to one-hundredth part, it is also well known that a large portion of water is usually held in the atmosphere, sometimes in a state of perfect solution, or entirely invisible, and sometimes visible in the form of mists and clouds. The atmosphere is also the general recipient of all those substances which are subject to evaporation, and which preserve their aeriform state under its ordinary heat and pressure.

In consequence of the air being thus composed of particles differing in their nature, several important effects are produced, which increase the difficulty of meteorological researches.

1. The degrees of heat and cold are found to vary with the different elevations of the atmosphere above the level of the ocean. In general it may be remarked, that the cold we experience is more intense in proportion to the height to which we have ascended. The tops of mountains are covered with snow, while on their sides, and in all the surrounding country, nature appears dressed in her gay liveries of summer, of autumn, or of spring. On the contrary, during the night season, it is frequently colder at the surface than it is at some small elevation above it. It is, however, to be observed, that the air seems to be divided into various strata, which differ from each other in their degrees of warmth, without regarding the exact proportion in which they differ in density, so that in travelling up a mountain, or ascending with an air balloon, we may pass through warmer up to colder regions, or vice versa.

2. As the air is composed of heterogeneous particles, it must be more or less salubrious, according as the mixture of these particles is more or less congenial with the human constitution. Mr. Fontana, however, observes that nature is not so partial as we commonly believe. She has not only, says he, given us an air almost equally good every where at every time, but has allowed us a certain latitude, or a power of living, and being in health in qualities of air that differ to a certain degree. By this I don't mean to deny the existence of noxious air in some particular places; but only say, that in general the air is good every where, and that the small differences are not to be feared so much as some people would make us believe. Nor do I mean to speak here of some vapours, and other bodies, which are accidentally joined to the common air in particular places, but do not change its nature and intrinsical property. These vapours are to be considered in the same manner as we should consider so many particles of arsenic swimming in the atmosphere. In this case it is the arsenic, and not the degenerated air, that would kill the animals that venture to breathe it.

3. As air is a solvent of all fluids, all vapours, and perhaps of many solid bodies, it is highly improbable that the different compounds should have the same elasticity, or even the same law of elasticity; and it is well known that air loaded with water, or other volatile bodies, is much more expansible by heat than pure air; nay, it would appear that certain determinate changes both of density and temperature, cause air to let go the vapours which it holds in solution.

The heterogeneous nature of the air, and the difference between the increase of its gravity and that of its elasticity, have opposed some formidable obstacles both to the calculating the height of mountains, and the ascertaining the limits to which the atmosphere extends. Philosophers have therefore had recourse to another method for determining the altitude of the atmosphere, viz. by calculation of the height from which the light of the sun is refracted, so as to become visible to us before he himself is seen in the heavens. By this method it was determined, that at the height of 45 miles, the atmosphere had no power of refraction; and conseqently, beyond that distance, was a

mere vacuum, or the next thing to it, and not to be regarded. This theory soon became very generally received, and the height of the atmosphere was spoken of as familiarly as the height of a mountain, and reckoned to be as well ascertained, if not more so, than the height of most mountains are. Very great objections, however, which have never yet been removed, arise from the appearance of some meteors, like large globes of fire, not unfrequently to be seen at vast heights above the earth. A very remarkable one of this kind was observed by Dr. Halley, in the month of March, 1719, whose altitude he computed to have been between 69 and 73 English miles and a half; its diameter 2800 yards, or upwards of a mile and a half, and its velocity about 350 miles in a minute. Others, apparently of the same kind, but whose altitude and velocity were still greater, have been observed: that very remarkable one, August 18, 1783, whose distance from the earth could not be less than 90 miles. Several of these meteors have been followed by explosions, and hissing noises have been heard as they passed. Dr. Halley acknowledged that he was unable to reconcile these circumstances with the received theory of the height of the atmosphere: as in the regions in which they move, the air ought to be several hundred thousand times more rare than what we breathe, and the next thing to a perfect vacuum. It appears, therefore, reasonable to conclude, that what is called the density of the air, does not altogether keep pace with its gravity, and consequently, that the absolute height of the atmosphere is not yet determined. The beginning and ending of twilight shew that the height at which the atmosphere begins to refract the sun's rays is about 44 or 45 miles. But this may not improbably be only the height to which the aqueous vapours are carried: for it cannot be thought any unreasonable supposition that twilight is refracted only by means of the aqueous vapour contained in the atmosphere; and that where this ceases, it is still capable of supporting the electric fire.

It is not unreasonable to suppose the visible universe occupied by air, which by its gravitation, will accumulate itself round every body in a proportion depending on their quantities of matter, the larger bodies attracting more of it than the smaller ones, and thus forming an atmosphere about each; and appearances warrant the supposition. Jupiter, Mars, Saturn and Venus, are evidently surrounded by atmospheres. The constitution of these atmospheres may differ exceedingly from other causes. If the planet has nothing on its surface that can be dissolved by the air, or volatilized by heat, the atmosphere would be clear and transparent, as is said to be the case with that of the moon.

As air is a fluid, so it performs motions of different kinds, of which we shall chiefly consider two.

The first of these is an internal vibration of its particles, or undulation, by which any extended portion of air is distributed into alternate parcels of condensed and rarefied air, which are continually changing their condition without changing their places. By this change the condensation which is produced in one part of the air, is gradually transferred along the mass of air to the greatest distances in all directions. It is found to be by this mean that distant bodies produce in us the sensation of sound. When we drop

a small pebble into water we see it produce a series of circular waves, which go along the surface of smooth water to a great distance, becoming more and more gentle as they recede from the centre; and the middle, where the agitation was first produced, remains perfectly smooth, and the smoothness extends continually, that is, each wave brought to a level remains at rest. Now these waves are produced and propagated by the depression and elevation made at the centre. The elevation tends to diffuse itself; and the force with which each particle of the water is actuated, is a force acting directly up and down, and is proportional to the elevation and depression of the particle. This pressure of water operates precisely in the same way as the condensation and rarefaction of the air, and therefore will serve to give some just conception of the propagation of sound.

When the air performs its other motion, it is said to blow, and changes its common denomination for that of wind. To comprehend the phenomena of wind, the reader must recollect that air is a heavy, elastic, and compressible fluid. Its weight bears some proportion to its density, so that when the particles of air are distant from each other, it is heavy, when near each other, light. If the particles of air are farther remote from each other than those of common air, it is said to be rarefied; if they are brought nearer to each other, it is condensed. In the former case it is lighter, and in the latter case heavier than the common air. When fluids of unequal specific quantities are mixed together, the heavier always descend, and the lighter ascend. Were quicksilver, water, and oil, thrown into the same vessel together, the quicksilver would uniformly occupy the bottom, the water the middle, and the oil the top. Were water to be thrown into a vessel of oil, it would immediately descend, because it is heavier than oil. Exactly the same thing takes place in the atmosphere. Were a quantity of air, for instance, to be suddenly condensed, at a distance from the surface of the earth, being now heavier than before, it would descend till it came to air of its own density; or were a quantity of air at the surface suddenly rarefied, being now lighter than the surrounding air, it would immediately ascend. If a bladder, half filled with air, be exposed to the heat of a fire, the air within will soon expand, and distend the bladder; if it be now removed to a cold place, it will soon become flaccid as before. This shews that heat rarefies, and that cold condenses, air.

When, therefore, the sun acts very intensely upon any part of our globe, that part of the atmosphere which is nearest the surface of the earth is heated, and becomes lighter than the rest of the air, it rises to an elevation equal to its rarity, and the cold heavy air rushes in from all sides to supply its place. A current of air is now put in motion, and its course will be directed from that quarter where it receives the strongest impulse, to that where it experiences the weakest resistance.

Such is the general theory of the wind, the causes of its assuming so many different directions will be discussed in the next chapter, when we have described the obstacles it has to encounter.

It is extremely difficult to ascertain the velocity of the wind. The best method seems to be by measuring the space passed over by the shadow of a cloud; but this is extremely

fallacious. For as the cloud must resist the current of air that drives it along, and consequently re-act upon it, it must retard the progress of the current, and is not, therefore, a just measure of its velocity. To this it must be added, that we have not sufficient reason to assert that the velocity of a current, at the height of the cloud, is the same with the velocity of the current below. A table has, however, been constructed by Mr. John Smeaton, a celebrated engineer, which being the result of many observations in the erection of wind-mills, we shall here insert, for the information of the reader.

Miles per hour	Feet per second.	Names.
1	1,47	
2	2,93	Light airs
3	4,40	
4	5,87	Breeze
5	7,33	
10	14,67	Brisk gale
15	22,	
20	29,34	Fresh gale
25	36,67	
30	44,01	Strong gale
35	51,34	
40	58,68	Hard gale
45	66,01	
50	73,35	Storm
60	88,02	
80	117,36	Hurricane, turning up trees, overturning
100	146,70	buildings, &c.

"These dreadful convulsions of nature (says Gregory, speaking of hurricanes), Dr. Perkins supposes to be caused by some occasional obstruction in the usual and natural progress of the equatorial winds. The reason he assigns for this conjecture is, the more than usual calm which commonly precedes them. In the natural course of the trade-winds, the air rises up in the line, and passes off towards the poles, and in the more contracted degrees of the higher latitudes, takes the course of the west trade-winds; so that could their ascent be prevented through the whole circle of the zone, there would be no more west winds in those latitudes than in any other. Very violent rains, and cold, however, tend to check the ascent of air out of this circle, rather causing it to descend. Great clouds of vapour generate cold and wet, while rain beats down the air; and as these prevent the rising of the air out of the line, so they hinder its usual progress from the tropics on both sides; hence the calms which usually precede hurricanes. Calms, in these tropical regions, are caused by the ascent of the air into the higher part of the atmosphere instead of its remaining near the line: the accumulation of air above then becomes heavier, by the cold which it meets in those regions, and de-

scends into the more rarified regions below. These heavy gales, therefore, will continue to descend till the upper regions are entirely exonerated."

In Mr. Beckford's history of Jamaica, there is a very detailed and striking account of the dreadful hurricane which desolated the islands in the year 1780, but it is too long for insertion as an extract, and in an abridged state the description would lose its force. "It is in the rainy season," says Mr. Adams, "principally in the month of August, that they are assaulted by hurricanes, which destroy at a stroke the labours of many years, and prostrate the most exalted hopes of the planter, and that, often, when he thinks himself out of the reach of fortune. It is a sudden and violent storm of wind, rain, thunder, and lightning, attended with a furious swelling of the seas, and sometimes with an earthquake; in short, with every circumstance which the elements can assemble, that is terrible and destructive. First, they see, as a prelude to the ensuing havoc, whole fields of sugar-canes whirled into the air, and scattered over the face of the country. The strongest trees of the forests are torn up by the roots, and driven about like stubble; their wind-mills are swept away in a moment; their works, the fixtures, the ponderous copper-boilers, and stills of several hundred weight, are renched from the ground, and battered to pieces; their houses are no protection; their roofs are torn off at one blast, whilst the rain, which in an hour rises five feet, rushes in upon them with irresistible violence."

Among the terrific phenomena exhibited in the atmosphere, may be numbered whirlwinds and water-spouts, which we have thus classed together, because they are considered by Dr. Franklin as the same, only one takes place at sea, the other on land. A water-spout is thus described by Mr. Joseph Harris, who had an opportunity of observing one, May 21st, 1732, about 9° east lon. from Cape Florida. "When first we saw the spout, says he, it was whole and entire, and much of the shape and proportion of a speaking trumpet; the small end being downwards, and reaching to the sea, and the big end terminated in a black thick cloud. The spout itself was very black, and the more so the higher up. It seemed to be exactly perpendicular to the horizon, and its sides perfectly smooth without the least ruggedness. Where it fell, the spray of the sea rose to a considerable height, which made somewhat the appearance of a great smoke. From the first time we saw it, it continued whole about a minute, and till it was quite dissipated, about three minutes. It began to waste from below, and so gradually up, while the upper part remained entire, without any visible alteration, till at last it ended in the black cloud above; upon which there seemed to fall a heavy rain in that neighbourhood. There was but little wind, and the sky elsewhere was pretty serene."

Whirlwinds are of several kinds. Some have a slow motion, and are injurious only by their vortex; while others seem to do mischief as well by their progressive, as by their whirling motion. Of this kind are those called typhons, which frequently follow the course of rivers. Of the destructive effects of these we have an instance in what happened at Charlestown, in South Carolina, on the first of June, 1761. It was first observed about noon, on land, upwards of 50 miles west by north of Charlestown, and destroyed several houses, &c. as it passed along, in many places making wide avenues

through the woods; from whence every tree and shrub was torn up, and great branches of trees were driven about in the column as it passed along. It directed its course to Ashley river, down which it came with surprising velocity; in its appearance resembling a column of smoke or vapour, whose motion was very irregular and tumultuous. Its momentum was so great, that Ashley river was ploughed to the bottom, and the channel laid bare. As it came down this river it made a constant noise like thunder, its diameter being computed at 300 fathoms. It was met at White Point by another of the same kind, that came down Cooper's river, but with inferior strength; however, on their meeting together, the agitation of the air was much greater; while the clouds, which were driving in all directions to that place, seemed to be precipitated, and whirled round with incredible velocity. It then fell upon the shipping in the road, entirely destroying some, and damaging others. It was scarcely three minutes in passing two leagues, and doing damage to the amount of 20,000*l.*; and had not its direction been altered by that gust which came down Cooper's river, it must have totally destroyed Charlestown, as nothing could resist its fury.

Dr. Franklin, in proceeding to explain his conceptions, begs to be allowed two or three positions as a foundation for his hypothesis.

1. That the lower region of the air is often more heated, and so more rarefied than the upper, and by consequence lighter.

2. That heated air may be very moist, and yet the moisture so equally diffused and rarefied, as not to be visible till colder air mixes with it; at which time it condenses and becomes visible. Thus our breath, although invisible in summer, becomes visible in winter. These circumstances being granted, he pre-supposes, a tract of land or sea, about 60 miles in extent, neither sheltered from the sun, nor refreshed by the wind, during a summer's day, or perhaps for several days without intermission, till it becomes violently heated, together with the lower regions of the air in contact with it; so that the latter becomes specifically lighter than the superincumbent higher regions of the atmosphere, wherein the clouds usually float; he supposes also that the air surrounding this tract has not been so much heated during those days, and therefore remains heavier. The consequence of this, he conceives, would be, that the heated lighter air would ascend, and the heavier descend, and as this rising cannot operate throughout the whole tract at once, because that would leave too extensive a vacuum, the rising will begin precisely in that column that happens to be lightest or more rarefied; and the warm air will flow horizontally from all parts of this column, where the several columns meeting, and joining to rise, a whirl is naturally formed, in the same manner as a whirl is formed in a tub of water, by the descending fluid receding from all sides of the tub towards the hole in the centre.

And as the several currents arrive at this central rising column with a considerable degree of horizontal motion, they cannot suddenly change it to a vertical motion; therefore, as they gradually, in approaching the whirl, decline from right to curve or circular lines, so having joined the whirl, they ascend by a spiral motion; in the same manner, as the water descends spirally through the hole in the tub above-mentioned. Lastly,

As the lower air nearest the surface is more rarefied by the heat of the sun, it is more impressed by the current of the surrounding cold and heavy air which is to assume its place, and consequently its motion towards the whirl is swiftest, and so the force of the lower part of the world strongest, and the centrifugal force of its particles greatest. Hence the vacuum which incloses the axis of the whirl should be greatest near the earth, or sea, and diminish gradually as it approaches the region of the clouds, till it ends in a point.

This circle is of various diameters, sometimes very large. If the vacuum passes over water, the water may rise in a body or column therein, to the height of 33 feet. The whirl of air may be as invisible as the air itself, though reaching in reality from the water to the region of cool air, in which our low summer thunder clouds commonly float; but it will soon become visible at its extremities. The agitation of the water under the whirling of the circle, and the swelling and rising of the water in the commencement of the vacuum, render it visible below. It is perceived above by the warm air brought up to the cooler region, where its moisture begins to be condensed by the cold into a thick vapour, and is then first discovered at the highest part, which being now cooled, condenses what rises behind it, and this latter acts in the same manner on the succeeding body; where, by the contact of the vapours, the cold operates faster in a right line downwards than the vapours themselves can climb in a spiral line upwards; they climb, however, and, as by continual addition, they grow denser, and, by consequence, increase their centrifugal force, and being risen above the concentrating currents that compose the whirl, they fly off and form a cloud. It seems easy to conceive how, by this successive condensation from above, the spout appears to drop or descend from the cloud, although the materials of which it is composed are all the while ascending. The condensation of the moisture contained in so great a quantity of warm air as may be supposed to rise, in a short time, in this prodigiously rapid whirl, is perhaps sufficient to form a great extent of cloud, and the friction of the whirling air on the sides of the column may detach great quantities of its water, disperse them into drops, and carry them up in the spiral whirl, mixed with the air. The heavier drops may, indeed, fly off, and fall in a shower about the spout; but much of it will be broken into vapour, and yet remain visible. As the whirl weakens, the tube may apparently separate in the middle; the column of water subsiding, and the superior condensed part drawing up to the cloud. The tube or whirl of air may nevertheless remain entire, the middle only becoming invisible, as not containing any visible matter.

This hypothesis has, however, met with some opposition; certain philosophers having attributed all the phenomena to electricity, and Dr. Lindsay, in particular, having warmly contended that water-spouts do not ascend, but descend from the clouds.

Evaporation, whether natural or artificial, is to be considered as the effect of heat; but there is nevertheless an important difference between this process as carried on by nature, or effected by art. Vapour has been explained, by the greatest philosophers, as a compound of water and fire. It is a well known law, which takes place in all fluids, that a body which is heavier than a fluid will sink in it, and that which is lighter will rise

to its surface. As, water therefore, is heavier than air, it must, when left to itself, descend in it, but when compounded with a quantity of fire which is more than sufficient to counterbalance the weight of the water, it then, becomes lighter than that region of the atmosphere which surrounds it, consequently ascends till it enters another region as light or lighter than itself. Every particle of vapour which is thus formed, is a drop of water formed in a hollow sphere, and filled with a certain portion of fire or heated air, so that it ascends on just the same principle as an air balloon. Artificial evaporation cannot take place without a considerable degree of heat, but natural evaporation is performed in almost any degree of cold with which we are acquainted.

Various are the changes that water undergoes, after being reduced to the state of vapour. The first of these is its assuming the form of smoke or fog, when mixed with the common atmosphere; which smoke, when examined by a microscope, appears to be composed of a vast number of sphericles of water, hollow, and filled with a fluid specifically lighter than air, by which means they ascend in it. As long as the aqueous vapour retains this visible form, it retains also its humidity, and will again become a liquid, or wet whatever comes in its way; and this the more readily, while it retains any sensible degree of heat. As the vapour cools in the atmosphere it gradually assumes an aerial state, mixing itself with the air so as to be no longer distinguishable from it. In this state the air itself does not by any means appear to become more moist, but continually drier the more water it receives. This, however paradoxical it may seem, is a certain fact; for in summer, though we are assured that evaporation goes on very rapidly from the surface both of sea and land, yet the air, so far from being moist, is much drier than at any other time; and yet we know that the whole quantity evaporated is somehow or other received by the atmosphere. Here, therefore, we are called on by the voice of nature to acknowledge the beneficence and wisdom of our Creator; for had he not regulated the natural evaporation by a law seemingly inexplicable, we should never enjoy the brightness of a summer's day.

After the water has attained this aerial state, our inquiries concerning it must, in a great measure, stop. We know not whether it has the form of small hollow sphericles, or really becomes part of the atmosphere itself, and assumes the form of what we call dephlogisticated air.

Clouds are formed from the aqueous vapours, which before were so closely united with the atmosphere as to be invisible. The general cause of the formation of clouds is a separation of the latent heat from the water whereof the vapour is composed: but that cold alone cannot, in all cases, cause the condensation of the atmospherical vapours, the serenity of the atmosphere, in the most severe parts, abundantly proves. Since electricity has been admitted to be a very powerful agent in all the great operations of nature, it has been assigned as the cause of the formation of all clouds, whether of thunder, rain, hail, or snow. Whether this opinion be well founded, may admit of some doubt; but that clouds contain large quantities of electrical fluid, is proved by many experiments. We have on record different accounts of dreadful effects produced by the electricity of clouds, but the following story will suffice to enable the reader to

form some conception of their irresistible force. It is related by Mr. Brydone, in his tour through Malta. On the 29th of October, 1757, about three quarters of an hour after midnight, there was seen to the south-west of the city of Malta, a great black cloud, which, as it approached, changed its colour, till at last it became like a flame of fire, mixed with black smoke. A dreadful noise was heard on its approach, which alarmed the whole city. It passed over the port, and came first on an English ship, which in an instant was torn in pieces, and nothing left but the hulk; part of the masts, sails, and cordage, were carried to a considerable distance along with the cloud. The small boats and felluccas that fell in its way, were all broken in pieces and sunk. The noise increased and became more frightful. A centinel, terrified at its approach, ran into his box, but both he and it were lifted up and carried into the sea, where he perished. It then traversed a considerable part of the city, and laid in ruins almost every thing that stood in its way. Several houses were laid level with the ground, and it did not leave one steeple in its passage. The bells of one of them, together with the spires, were carried to a considerable distance; the roofs of the churches demolished and beat down, &c. It went off at the north-east point of the city, and demolishing the light-house, is said to have mounted up into the air with a frightful noise, and passed over the sea to Sicily, where it tore up some trees, and did other damage; but nothing considerable, as its fury had been mostly spent at Malta. The number of killed and wounded amounted to near 200; and the loss of shipping, &c. was very considerable.

The height of clouds is not usually great; those which are most highly electrified being often not above seven or eight hundred yards above the ground; but the generality of clouds are suspended at the height of a mile, or a little more, above the earth. The motions of the clouds, though sometimes directed by the wind, are not always so, especially when thunder is about to ensue. In this case they seem to move very slowly, and often to be absolutely stationary for some time. The reason of this, most probably, is, that they are impelled by two opposite streams of air, nearly of equal strength, by which means their velocity is greatly retarded. In some cases the motions of the clouds evidently depend on their electricity, independent of any current of air whatever. Thus, in a calm warm day, we often see small clouds meeting each other in opposite directions, and setting out from such short distances, that we cannot suppose any opposite winds to be the cause. These clouds, when they meet, instead of forming a larger one, become much less, and sometimes vanish altogether, a circumstance undoubtedly owing to the discharge of opposite electricities into each other. The shapes of the clouds are, likewise, owing to their electricity; for in those seasons in which great commotions have been excited in the atmospherical electricity, we shall perceive the clouds assuming strange and whimsical shapes, which vary almost every moment. This, as well as the meeting of small clouds in the air, and vanishing upon contact, is an almost infallible sign of thunder.

Dew is a dense, moist vapour, found on the earth in spring and summer mornings, in form of a misling rain, being collected there chiefly while the sun is below the horizon. Whether it is formed from the vapours ascending from the earth during the night time,

or from the descent of such as have been already raised during the day, is a dispute not yet thoroughly decided.

Little satisfaction can be obtained in attempting to discover the production of rain. It is universally agreed that rain is produced by the water previously absorbed by the sun into the atmosphere; but very great difficulties occur when we begin to explain why the water, once so closely united with the atmosphere, begins to separate from it. We cannot ascribe this separation to cold, since rain often takes place in very warm weather; and though we should suppose the condensation owing to the superior cold of the higher regions, yet there is a remarkable fact that will not allow us to have recourse to this supposition. It is certain the drops of water increase in size as they descend. The production of rain is now generally referred to electricity, but how electricity operates in this case, is not very satisfactorily explained. Rain is produced by a moderate electricity; hail and snow, by one more violent; and thunder, by the most violent of all.

The author of the article rain, in the Encyclopedia Britannica, supposes generally a difference between the electricity of the earth, and that of the atmosphere. "As," says he, "the action of the solar light continues to bring down the electric matter, and the earth continues to discharge an equal quantity of it into the atmosphere, some part of the atmosphere must at last be overloaded with it, and attempt to throw it back into the earth. This attempt will be vain, until a vent be found for the electricity at some other place; and as soon as this happens, the electrified atmosphere begins to throw off its superfluous electricity, and the earth to receive it. As the atmosphere itself is a bad conductor, and the more so the drier it is, the electric matter attacks the small aqueous particles that are detained in it by means of the latent heat. These being unable to bear the impetus of the fluid, throw out their latent heat, which easily escapes, and thus make a kind of vacuum in the electrified part of the atmosphere. The consequences of this are, that the aqueous particles being driven together in large quantities, at last become visible, and the sky is covered with clouds; at the same time a wind blows against these clouds, and, if there is no resistance in the atmosphere, will drive them away. But if the atmosphere, all round the clouds, is exceedingly electrified, and the earth is in no condition to receive the superfluous fluid, excepting in that place which is directly under the cloud, then the whole electricity of the atmosphere, for a vast way round, will tend to that part only, and the cloud will be electrified to an extreme degree. A wind will now blow against the cloud from all quarters, more and more of the vapour will be extricated from the air by the electric matter, and the cloud will become darker and thicker, at the same time that it is in a manner stationary, as being acted upon by opposite winds, though its size is enlarged with great rapidity, by the continual supply of vapour brought up by the winds. The vapours which were formerly suspended invisibly by the latent heat, are now suspended visibly by the electric fluid, which will not let them fall to the earth until it is in a condition to receive the electric matter descending with the rain. It is easy to see, however, that thus every thing is prepared for a

violent storm of thunder and lightning, as well as rain. The surface of the earth becomes electrified from the atmosphere; but when this has continued for some time, a zone of earth, considerably below the surface, acquires an electricity opposite to that of the clouds and atmosphere; of consequence, the electricity, on being violently pressed on all sides, will at last burst out towards that zone where the resistance is least. The vapours now having lost that which supported them, will fall down in rain, if there is not a sufficient quantity of electrical matter to keep them in the same state in which they were before: but if this happens to be the case, the cloud will instantly be charged again, while little or no rain will fall; and hence very violent thunder storms take place without any rain at all, or such as is quite inconsiderable in quantity. When the electricity is less violent, the rain will descend in vast quantity, especially after every flash of lightning; and great quantities of electric matter will thus be conveyed to the earth, insomuch that sometimes the drops have been observed to shine as if they were on fire, which has given occasion to the report of fiery rain having fallen on certain occasions. If the quantity of electric matter is smaller, so that the rain can convey it all gradually to the ground, there will be rain without any thunder; and the greater the quantity of electricity, the more violent will be the rain."

We shall now attempt to trace the effects which are produced by the agency of cold. Here it will be necessary, in the first place, to recollect that heat exists in two very different modes, in one of which it is latent, in the other perceived. We cannot discover, even with the assistance of the thermometer, the exact quantity of heat which a body contains, but only that which it emits. If heat flow from any part of our body, to any substance actually in contact with it, the sensation of cold is excited, and we call the substance cold; but if it flow from any substance into our body, the sensation of heat is excited, and we call that substance hot, without regard to the absolute quantity of heat contained in either case.

Of all known substances, the atmosphere either absorbs or throws out heat with the greatest facility; in one or other of the ways it always acts upon the surface of the earth, and such bodies as are placed on or near it, for these, properly speaking, have no temperature of their own, but are entirely regulated by that of the atmosphere.

When the air has been for some time absorbing the heat from terrestrial bodies, a frost must be the undoubted consequence, for the same reason that water freezes in a vessel put in a freezing mixture; and were this absorption to continue for a length of time, the whole earth would be converted into a frozen mass. There are, however, certain powers in nature by which this effect is always prevented; and the most violent frost we can imagine must always, as it were, defeat its own purpose, and end in a thaw. To understand this subject, we must observe that the water, after having been raised into vapour, combines so effectually with the air as to lose both humidity and visibility. In this case the air and water are said to be in a state of union.

When such an union takes place either in winter or in summer, we observe the atmosphere also inclined to absorb heat, and consequently to frost. Thus, in clear and settled weather, even in summer, though the day be excessively hot, by reason of the

long continued sun-shine, yet the mornings and evenings are remarkably cold, and sometimes even disagreeably so. The air being, therefore, always ready in the time of frost, or in clear weather, to absorb heat from every substance which comes into contact with it, it follows that it must also absorb part of that which belongs to the vapours contained in it. Though vapour is capable of becoming much colder than water without being frozen, yet it must, by a continued absorption, at last part with its latent heat, i. e. that which constitutes its vapour; and without which, it is no longer vapour, but water or ice. No sooner, therefore, does the frost arrive at a certain pitch, than the vapours every where dispersed through the air give out their latent heat; the atmosphere then becomes clouded; the frost either totally goes off, or becomes milder by reason of the great quantity of heat discharged into the air; and the vapours descend in rain, hail, or snow, according to the particular disposition of the atmosphere at the time. Even in the polar regions, where it may be thought that the frost must increase beyond measure, there are also natural means to prevent its running to extremes. The principal cause here, is the mixture of a great quantity of vapours from the more temperate regions with the air in those dreary climates.

It is well known that aqueous vapours always fly from a warm to a cold place; for this reason, the vapours raised by the sun in the more temperate regions of the earth, must continually travel northward and southward in great quantities. Thus they furnish materials for those immense quantities of snow and ice that are to be found in the neighbourhood of the poles, and which we cannot imagine the weak influence of the sun in those parts capable of raising. It is impossible that a quantity of vapour can be mixed with frosty air, without communicating a great deal of heat to it, and there are often thaws of considerable duration even in those climates where, from the little influence of the sun, we should suppose the frosts would be perpetual. We may now account, with some probability, for the uncertain duration of frosts. In this country they are seldom of a long continuance; because the vapours raised from the sea, with which our island is surrounded, perpetually mix with the air over the island, and prevent a long duration of the frost. For the same reason frosts are never of so long duration in the maritime places on the continent, as the inland ones. There is nothing, however, more uncertain than the motion of the vapours with which the air is continually filled, and therefore it is impossible to prognosticate the duration of the frost, with any degree of certainty. In general we may be certain, that if a quantity of vapour is accumulated in any place, no intense frost can subsist in that place for any length of time; and by whatever causes the vapours are driven from place to place, by the same causes the frosts are regulated throughout the world.

Hoar frost is a cold moist vapour, which is drawn up a little way into the air, and in the night falls again upon the earth, where it is congealed into icy crystals of various figures. In other words, hoar frost is only dew frozen.

Hail is supposed by Dr. Franklin, to be formed in the higher regions of air, where the cold is intense, and where the electric matter is very copious. In these circumstances, a great number of particles of water are brought near together, where they are

frozen, and in their descent collect other particles; so that the density of the substance of the hailstone grows less and less from the centre, this being formed first in the higher regions, and the surface being collected in the lower. Agreeably to this, it is observed, that on high mountains, hail-stones, as well as drops of rain, are very small, there being but a small space through which they can fall.

Snow differs from hail and hoar frost, in being, as it were, crystalized, which they are not. This appears, on examining a flake of snow by a magnifying glass, when the whole will appear to be composed of fine shining darts, diverging like rays from a centre. As the flakes fall down through the atmosphere, they are continually joined by more of the radiated darts, and thus increased in bulk like the drops of rain or hailstones.

Dr. Grew, in a discourse on the nature of snow, observes, that many parts thereof are of a regular figure, for the most part stars of six points, and are as perfect and transparent ice as any we see on a pond. Upon each of these points are other collateral points, set at the same angles as the main points themselves; among which there are divers other irregular, which are chiefly broken points, and fragments of the regular ones. Others also, by various winds, seem to have been thawed and frozen again into irregular clusters; so that it seems as if the whole body of snow were a mass of icicles irregularly figured. That is, a cloud of vapour being gathered into drops, the said drops forthwith descend; upon which descent, meeting the freezing air as they pass through a colder region, each drop is immediately frozen into an icicle, shooting itself forth into several points; but these still continuing their descent, and meeting with some intermitting gales of warmer air, or in their continual waftage to and fro, touching upon each other, some of them are a little thawed, blunted, and again frozen into clusters, or entangled so as to fall down in what we call flakes The lightness of snow, although it is firm ice, is owing to the excess of its surface, in comparison to the matter contained under it, as gold itself may be extended in surface till it will ride upon the least breath of air. The whiteness of snow is owing to the small particles into which it is divided: for ice, when pounded, will become equally as white. We are not to consider snow merely as a curious and beautiful phenomenon. The Great Dispenser of universal bounty hath so ordered it that it is eminently subservient, as well as all the works of creation, to his benevolent designs. Were we to judge from appearances only, we might imagine that, so far from being useful to the earth, the cold humidity of snow would be detrimental to vegetation: but the experience of all ages asserts the contrary. Snow fructifies the earth, and guards the corn, or other vegetables, from the intenser cold of the air, and especially from the cold piercing winds.

That there is so great a resemblance between lightning and those phenomena which are displayed by excited electrics as to indicate that they proceed from a similar cause, a fluid every where diffused throughout the regions of space has been already proved, it remains, however, to apply this theory to the various appearances which the lightning assumes, and the various effects it is known to produce. In a serene sky the lightning in this country, at least almost always, hath a kind of indistinct appearance without any determinate form, like the sudden illumination occasioned by firing a quantity of loose

gun-powder; but when accompanied with thunder it is well defined, and hath very often a zigzag form. Sometimes it makes only one angle like the letter V, sometimes it hath several branches, and sometimes it appears like the arch of a circle. But the most formidable and destructive form that lightning is ever known to assume is that of balls of fire. The motion of these is very often perceptible to the eye; but wherever they fall much mischief is occasioned by their bursting, which they do with a sudden explosion like that of fire-arms. The next to this in its destructive effects is the zigzag kind, for that which appears like indistinct flashes is seldom or never known to do hurt. The colour of the lightning also indicates, in some measure, its power to do mischief; the palest and brightest flashes being most destructive; such as are red, or of a darker colour, commonly doing less damage.

The different forms of the flashes are exemplified in those of electric sparks. Where the quantity of electricity is small, and consequently incapable of striking at any considerable distance, the spark appears straight, without any curvature or angular appearance: but where the electricity is very strong, and of consequence capable of striking an object at a pretty considerable distance, it assumes a crooked or zigzag form. This is always the case with Mr. Nairn's very powerful machines; sparks may be taken from them at the distance of 20 inches, and these put on the angular zigzag form of lightning. The reason of this appearance, both in these sparks, and in the lightning is, that the more fluid electric matter hath to pass through the denser and less fluid atmosphere with great rapidity, and, in fact, this is the way in which all the more fluid substances pass through those that are less so, at least when their velocity becomes considerable.

The zigzag form of lightning is very dangerous, because it must overcome a very violent resistance of the atmosphere, and wherever that resistance is in the smallest degree lessened, there it will undoubtedly strike, and at a very considerable distance too. The most destructive kind of lightning, however, as we have already observed, is that which assumes the form of balls. These are produced by an exceeding great power of electricity, gradually accumulated till the resistance of the atmosphere is no longer able to confine it. In general the lightning breaks out from the electrified cloud by means of the approach of some conducting substance, but the fire-balls seem to be formed, not because there is any substance at hand to attract the electric matter from the cloud, but because the electricity is accumulated in such quantity that the cloud itself can no longer contain it.

Thunder is the noise occasioned by the explosion of lightning echoed back from the irregularities on the surface of the earth, in like manner as the noise of a cannon is echoed, and in particular circumstances forms a rolling lengthened sound. The rattling in the noise of thunder, which makes it seem as if it passed through arches, or as if variously broken, is probably owing to the sound being excited among clouds hanging over one another, and the agitated air passing irregularly between them.

Other phenomena of electricity are denominated fire-balls, and may be distinguished into three kinds.

1. The large fire-balls, which are sometimes called fiery meteors, and fill superstitious

persons with great anxiety and alarm. The first of these of which we have any accurate account, was observed by Dr. Halley, and some other philosophers, at different places, in the year 1719. The most remarkable of these on record, appeared on the 18th of August, 1783, about nine o'clock in the evening. It was to the northward of Shetland, and took a southerly direction for an immense space, being observed as far as the southern provinces of France, and one account says that it was seen at Rome also. During its course it appears frequently to have changed its shape, sometimes appearing in the form of one ball, sometimes of two or more, sometimes with a train, sometimes without one. It passed over Edinburgh nearly in the zenith, and had then the appearance of a well defined round body, extremely luminous, and of a greenish colour; the light which it diffused on the ground giving likewise a greenish cast to objects. After passing the zenith, it was attended by a train of considerable length, which continually augmented, and at last obliterated the head entirely; so that it looked like a wedge flying with the obtuse end foremost. The motion was not apparently swift, by reason of its great height, though, in reality, it must have moved with great rapidity, on account of the vast space it travelled over in a short time. In other places its appearance was very different. At Greenwich, we are told, that two bright balls, parallel to each other, led the way, the diameter of which appeared to be about two feet, and were followed by an explosion of eight others, not elliptical, seeming gradually to mutilate, for the last was small. Between each two balls a luminous serrated body extended, and at last a blaze issued, which terminated in a point. Minute particles dilated from the whole. The balls were tinted first by a pure bright light, then followed a tender yellow, mixed with azure, red, green, &c. which, with a coalition of bolder tints, and reflection from the other balls, gave the most beautiful rotundity and variation of colours that the human eye could be charmed with. The sudden illumination of the atmosphere, and the form and singular transition of this bright luminary, tended much to make it awful: nevertheless the amazing vivid appearance of the different balls, and other rich connective parts not very easy to delineate, gave an effect equal to the rainbow in the full zenith of its glory. Various hypothesis have been invented to account for these phenomena, but their formation is now generally numbered among the effects of electricity. This is argued from their prodigious velocity, which is not less than 120 miles in a minute; various electrical appearances which are known to attend them; from their connection with the aurora borealis; and from the northerly direction in which they proceed.

2. Falling, or shooting stars. These are found to move in all directions contrary to what has been observed in the large fire-balls we have been describing. Dr. Bleyden, who published an ingenious dissertation on these subjects, in 78th volume of the philosophical transactions, after mentioning the difference of the direction in which the falling stars move from that of the fire-balls, says, that it is, " perhaps, because they come farther within the verge of our atmosphere, and are thereby exposed to the action of extraneous causes. That the smaller sort of meteors, such as shooting stars, are really lower down in the atmosphere, is rendered very probable by their swifter apparent motion: perhaps it is this very circumstance that occasions them to be smaller, the electric

fluid being more divided in more resisting air. By these masses of electric matter which, more where there is scarce any resistance, so generally affect the direction of the magnetic meridian, the ideas which have been entertained of some analogy between these two obscure powers of nature, seem not altogether without foundation. If the foregoing conjectures be just, distinct regions are allotted to the electrical phenomena of our atmosphere. Here below we have thunder and lightning, from the unequal distribution of the fluid among the clouds; in the loftier regions, whither the clouds never reach, we have the various gradations of falling stars; till, beyond the limits of our corpuscular atmosphere, the fluid is put into motion in sufficient masses to hold a determined course, and exhibit the different appearances of what we call fire-balls; and, probably, at a still greater elevation above the earth, the electricity accumulates in a lighter and less condensed form, to produce the wonderful diversified streams and coruscations of the aurora borealis."

3. Fire-balls of another kind are smaller and nearer the surface of the earth, being sometimes observed to burst out of thunder clouds, and at other times to appear in perfectly serene weather, and produce the most awful effects. One of these is mentioned by some authors as falling in a serene evening on the island of Jamaica, exploding as soon as it touched the surface of the ground, and making a considerable hole in it. Another is mentioned by Dr. Priestly, as rolling along the surface of the sea, then rising and striking the top-mast of a man of war, exploding and damaging the ship. We likewise hear of an electric cloud at Java; whence, without any thunder-storm, there issued a vast number of fire-balls, which did incredible mischief. This last phenomenon is considered as pointing out to us the true origin of balls of this kind, viz. an excessive accumulation of electricity in one part, or a violent tendency to circulate, when at the same time the place where this motion begins is at so great a distance, or meets with other obstacles of such a nature, that it cannot easily get thither. Urged on, however, by the violent pressure from behind, it is forced to leave its place; but being equally unable to displace the great quantity of the same fluid, which has no inclination to move the same way with itself, it is collected into balls, which run hither and thither, according as they meet with conductors capable of leading them into some part of the circle.

Ignes fatui are a kind of dancing fires which are sometimes observed in mines and other moist and damp places. They are supposed to proceed from the inflammable air, and to be set on fire by electric sparks.

The last meteor we shall treat of is the aurora borealis, or northern twilight, which is now so frequently observed, especially in the winter season, as to need no particular description. In northern regions of the earth it appears more picturesque, and helps considerably to cheer the darkness of their long winter nights. In the Shetland isles the merry dancers, as the aurora is there called, are the constant attendants of almost every clear evening. They commonly appear at twilight near the horizon, of a dun colour, approaching to yellow, sometimes continuing in that state for several hours without any sensible motion; after which they break out into streams of stronger light, spreading into columns, and altering slowly into ten thousand different shapes, varying their co-

lours from all the tints of yellow to the obscurest russet. They often cover the whole hemisphere, and then make the most brilliant appearance. Their motions at these times are most amazingly quick; and they astonish the spectator with the rapid change of their form. They break out in places where none were ever seen before, skimming briskly along the heavens; are suddenly extinguished, and leave behind them a uniform dusky tract. This again is brilliantly illuminated in the same manner, and as suddenly left a dull blank. In certain nights they assume the appearance of vast columns, on one side of the deepest yellow, on the other declining away till it becomes undistinguished from the sky. They have generally a strong tremulous motion from end to end, which continues till the whole vanishes. In a word, we who only see the extremities of these northern phenomena, have but a faint idea of their splendor and their motions.

These splendid and awful appearances are not confined to the northern regions, but appear, with some diversity of circumstances, in countries approaching the antarctic pole. They are thus described by Mr. Forster, in his account of his voyage with Captain Cook, on Feb. 17, 1773, as they were in lat. 58° south, "A beautiful phenomenon, says he, was observed during the preceding night, which appeared again this and the following nights. It consisted of long columns of a clear white light, shooting up from the horizon to the eastward, almost to the zenith, and gradually spreading on the whole southern part of the sky. These columns are sometimes bent sideways at their upper extremities; and though in most respects similar to the northern lights of our hemisphere, yet differed from them in being always of a whitish colour, whereas ours assume various tints, especially those of a fiery and purple hue. The sky was generally clear when they appeared, and the air sharp and cold, the thermometer standing at the freezing point."

The aurora borealis was known to the antients, who distinguished it by several names, according to the different forms and colours it assumed. It was, however, very rare till 1716, since which time it has appeared so frequently as to fall under every ones notice. Its height has not been exactly ascertained, some supposing it to be 800 miles, or more, above the surface of the earth, while others conceive it to be even less elevated than the falling stars. Like most other meteors, it is supposed to have an electrical origin, being formed, according to some philosophers, by a vast quantity of electric fluid accumulated at the poles endeavouring to supply the deficiency of the same fluid in the tropical regions.

Throughout the whole of this chapter we have done little more than recite the observations and opinions of ingenious men, being fearful, where there is so much scope for dispute, to advance any opinion of our own. It is, however, pleasant to recollect how great a progress has been made, of late years, in the investigation of these subjects. This would seem to encourage the hope that in some future period so much additional light will be obtained from the joint labours of experimental philosophers, that we may be able to speak with certainty of many meteorological phenomena, concerning which we can do little more than collect isolated facts, and exhibit ingenious, but uncertain hypotheses.

CHAPTER IV.

Geology,—Geographical definitions—Mountains, their varieties—Volcanoes—Earthquakes—Islands—Composition of water, springs, rivers, the sea—Tides—Winds—Weather—Theories of the earth—Kirwan's remarks on the creation, the flood, and subsequent catastrophes.

THE globe we inhabit may be distinguished into two principal component parts land and water. To which of these the greater share of the contents of this world is to be referred, we have too little acquaintance with the constitution of the earth to be able to decide; it is, however, certain that the ocean possesses a much greater extent of surface than can by any means be assigned to the shore. The various ways in which these two component parts of the earth have set limits to each other's dominion, have given occasion for several definitions which it will be necessary here to enumerate.

A continent is a large portion of the land, the several regions of which are not separated from each other by the sea. An island is a tract of land every where surrounded by the water. A peninsula is almost surrounded by the sea, but is joined either to a continent, or to some other peninsula, by a narrow neck of land, which is denominated an isthmus. The utmost verge of the land which is beat upon by the ocean or sea, is usually stiled the shore. A promontory, cape, or headland, is a point of land extending a considerable way into the the sea. These are the most remarkable divisions of the land.

An ocean is a great body of water separating continents from one another. A sea is a smaller body of water confined by the land, and separating a continent from islands or peninsulas, or islands or peninsulas from each other. Bays and gulphs are parts of the sea almost surrounded by the land. Seas, bays, and gulphs, are frequently confounded with each other; but if they were accurately distinguished, the term a bay would be given only to such parts of the water as are more surrounded by land than seas are, and less so than gulphs. A strait is a narrow passage out of one sea to another. Lakes are waters on every side surrounded by land. The sea is a general denomination for all parts of the globe which are covered with water.

Oceans may be compared to continents; seas, gulphs, bays to peninsulas; and lakes to islands. Shores are a sort of disputed property, partly to be claimed by the water, and partly by the land.

"The surface of the earth," says the count de Buffon, "is not, like that of Jupiter, divided into eternal bands or belts, parallel to the equator; it, on the contrary, is divided from one pole to the other into two belts of the earth, and two of sea. The first and principal belt is the antient continent, the greater length of which is a line

at the most eastern point of the north of Tartary, and extending from thence to the Cape of Good Hope. This line is about 3600 leagues in length, and is never interrupted but by the Caspian, and the Red Sea, the breadth of which is inconsiderable, and ought not to be regarded, and especially when the whole surface of the globe is divided into only four parts. This line may be considered as the middle of the antient continent; for in measuring the surface on each side of it, I find that on the left there are 2,471,092½ square leagues; and on the right there are 2,469,687, which is an equality so surprising as to render it extremely probable that this line, which is the longest, at the same time really divides the contents of the antient continent. The old continent then, consists of 4,940,780 square leagues, which is a fifth part of the surface of the globe, and may be regarded as a large belt of earth, with an inclination to the equator of about 30 degrees."

"The new continent is another belt of earth, the greater length of which may be taken from the mouth of the river La Plata to the lake of the Assiniboils. This line is only interrupted by the gulph of Mexico, which may be considered as a Mediterranean sea, is about 2,500 leagues in length, and divides the new continent nearly into two equal parts, that on the left containing 1,069,288 leagues square, and that on the right 1,070,926. It is the middle of the belt of land called the new continent, and is likewise inclined to the equator about 30°, but in an opposite direction; for that of the old continent extends from the north-east to the south-west; but that of the new continent from north-west to south-east. The superficial contents of the old and new continents are about 7,080,993 square leagues, which is not near a third part of the surface of the globe, which contains 25,000,000 square leagues."

"Of these lines, which divide both the continents into two equal parts, it may be remarked, that they both terminate at the same degrees of north and south latitude; and that the two continents make mutual projections, exactly opposite to each other, viz. those on the African coast, from the Canary isles to Guinea; and those of America, from Guiana to the mouth of the Rio Janeiro."

However we may wish to be acquainted with the interior of the earth, we have, as the French naturalist observes, only penetrated its rind. The greatest caverns, the deepest mines, descend not above the 800th part of its diameter. Our judgment is, therefore, confined to the upper stratum, or more superficial part. We know, indeed, that bulk for bulk, the earth is four times heavier than the sun: we likewise know the proportion its weight bears to that of the other planets. But still this estimation is only relative. We have no standard. Of the real weight of the materials we are so ignorant, that the internal part of the globe may be either a void space, or may be composed of matter a thousand times heavier than gold. Neither is there any method of making farther discoveries on this subject, it is even with difficulty that rational conjectures can be formed.

The several beds or layers of different matter whereof the earth is composed, are denominated strata. The upper stratum of the globe is mostly composed of animal and vegetable matter. The different strata that compose the earth are not arranged accord-

ing to their specific gravities: for beds of heavy matter are frequently placed above those that are lighter, and solid rocks are often supported by beds of earth, clay, or sand. Every stratum is, according to Buffon, generally placed in an horizontal position, and is of nearly equal thickness through its whole extent.

To enumerate the different species of minerals that are found above or under the surface of the earth is not the design of the present chapter; there is, however, one kind of fossils too remarkable to be passed over in silence, namely, the fossils which are discovered in abundance in almost every region that has been yet explored. The shells of Turenne are a striking example. They are thus described by the historian of the Royal Academy of Paris. "Reaumer's late observations on the subject are astonishing. He discovered a mass, below ground, of 130,680,000 cubic fathoms of shells, either whole or in fragments, without the least mixture of stone, earth, sand, or other foreign matter. Before this remarkable instance, fossil shells never appeared in such enormous quantities, nor without being mixed with other bodies. This prodigious mass lays in Turenne, more than six leagues from the sea. It is of great service to the peasants of that province; they use the shells for marle in fertilizing their lands, which would otherwise be perfectly barren. What the peasants dig out of the earth, to the depth of eight or nine feet, consists only of fragments of shells; but these fragments are easily recognized to be those of real shells, for they still retain their original channels or furrows, and have only lost their lustre and polish, as most shells do after having remained long under ground. The smallest fragments are only dust; but we know them to be the dust of shells, because they consist of the very same matter with the larger fragments and the entire shells, which are sometimes found. The species both of the large fragments, and of the entire shells, are easily distinguishable. Some of these species belong to the coast of Poitou, and others of them to foreign shores. This mass, likewise, furnishes corals and other productions of the sea. Falun is the name by which this matter is distinguished in that province; and it is found wherever the ground is dug, through an extent of about nine leagues square. The peasants never dig deeper than 20 feet, because, says Reaumer, they imagine the expence of labour would exceed the value of the commodity. They might, however, dig deeper. But our calculation of 130,680,000 cubic fathoms proceeds upon the supposition of only 18 feet deep, and 2,200 fathoms to the league. Every article, therefore, is undervalued, and this mass of shells must greatly exceed the above calculation; if the quantity be only doubled, this wonderful phenomenon will be greatly augmented."

The fossil shells that are discovered in different countries consist not only of those which are found in the neighbouring coasts, but of such as inhabit the most distant parts of the ocean, and even of several that have never been met with in any other state.

Not only is the land more elevated than the sea, but different parts of it are higher than others. Hence arises the distinction of hills and mountains, valleys and plains, though these terms are used relatively, and have not any precise reference to the elevation of the land above the surface of the water. Wherever we meet with any extent of country which is level, and not much inclined to the horizon, we call it a plain. A val-

ley is a part of the land which is more depressed than the adjacent country. Those parts of the earth which are more elevated than the adjacent country, are denominated hills, or mountains.

"In common language," says Kirwan, "mountains are distinguished from hills only by annexing to them the idea of superior height, not assigning to either the exact height that should entitle it to its particular denomination." Geogolists have aimed at greater precision; Pini and Mitterpacter call any earthly elevation a mountain whose declivity makes with the horizon an angle of at least 13°, and whose perpendicular height is not less than 1-5th of the declivity. Werner calls a mountain high when its perpendicular height exceeds 6,000 feet; middle-sized, when its height reaches from 3,000 to 6,000 feet, and low, when its height is beneath 3,000 feet. Betwixt the tropics, the boundaries of vegetation are fixed at the height of about 12,000 feet; in the temperate climates, at from 5 to 8,000; and within the polar circle, still lower.

The perpendicular height of the loftiest mountains that have yet been measured, does not much exceed 3,000 fathom above the level of the sea. This difference of elevation, when compared with the diameter of the globe, is but as a fathom to a league, or a foot to 2,200 feet, and upon a globe of 2½ feet, would not make the 16th part of a French line.

Mr. Buffon was one of those philosophers who wished to see as little as possible of the Creator in his works, yet, when speaking of the inequalities on the surface of the globe, he makes the following observations: "Though the inequalities upon the surface of the earth may be considered as a deformity in its figure, they are absolutely necessary to vegetation and animal life. To be convinced of this we need only consider what would be the condition of the globe were its surface perfectly smooth and regular. Instead of those beautiful hills, which furnish abundance of water for supporting the verdure of the earth, instead of those richly garnished fields, where plants and animals find an easy and comfortable subsistence, a dreary ocean would cover the whole globe, and the earth, deprived of all its valuable qualities, would be an obscure abandoned planet, suited only for the habitation of fishes."

Mr. Kirwan, a philosopher of a very contrary character, remarks, with great apparent satisfaction, the numerous advantages derived from mountains. "Among," says he, "the various inanimate objects which nature has so profusely scattered round us, there are none which, at first sight, convey so awful an impression of the power of its great Author, as those stupendous masses we call mountains; none in which reflection discovers more convincing proofs of wisdom and beneficence, than in their diversified heights and arrangement, exactly suited to the varieties of their geographic position, and the general œconomy of the globe. Without them the earth would be little more than a sandy desert, and the atmosphere a pestilential receptacle of noisome exhalations; by conducting the electric fluid, and the principle of heat, they contribute to the production of rain, which fertilizes the former, and purifies the latter. Their elevation enables us to extract metallic, combustible, saline, and other substances, whose use is indispensible,

yet which, in flat situations, from the impossibility of drawing off the water, we could not obtain. Among the stony substances they present us, many are applied to building, and various arts, many are the harbingers of metallic or other valuable substances, and many others, both stony and metallic, exist, whose uses, through the unpardonable neglect of former ages, are as yet unknown, mankind unaccountably forgetting that the principal occupation originally assigned to them was to cultivate, that is, to labour on, and extract every possible advantage from the earth and the substances it contains. The height of those mountains that raise their lofty summits on the eastern parts, is proportioned to the course which their mighty rivers must hold in the extensive empires of Hindoostan and China, and fitted to produce the refreshing blasts necessary to moderate the ardour of those sultry climates; whereas in the more western tracts, the same reasons not existing, the elevations are far less considerable. In the southern parts of Europe, the accumulated and exalted masses of the Alps, Appenines, and Pyrenees, dispense the same blessings as in the north-east part of Asia; and on the other hand, in Africa and Arabia, immense sandy plains occur, whose heated surface produces those alternations of atmospheric currents that occasion the monsoons, and the varieties of season, requisite for the tropical regions."

It has been suggested by sir Isaac Newton, that a mountain of an hemispherical figure, three miles high, and six broad, would not, by its attraction, draw the plumb line two minutes out of the perpendicular. An attempt to ascertain this, by experiment, was made in the year 1738, when the French academicians, who were sent to Peru to measure a degree under the equator, attempted to discover the attractive power of a mountain in the province of Quito. Their circumstances were, however, unfavourable to the solution of such a difficult problem. His Britannic majesty, therefore, determined to enable the Royal Society to undertake the execution of this delicate and important experiment. It was conducted by the astronomer royal. The mountain Schehallien, situated nearly in the centre of Scotland, was pitched upon as the most proper for the purpose of any that could be found in this island. The observations were made by taking the meridian zenith distances of different fixed stars by means of a zenith secter of ten feet radius, first on the south, and afterwards on the north side of the hill, the greatest length of which extended in an east and west direction. From these experiments, which were attended with success, the following inferences have been drawn:

1. "It appears that the mountain Schehallien exerts a sensible attraction; therefore, from the rules of philosophizing, we are to conclude that every mountain, and indeed every particle of the earth is endued with the same quality, in proportion to the quantity of matter."

2. "The law of the variation of this force, in the inverse ratio of the squares of the distances, as laid down by Sir Isaac Newton, is also confirmed by this experiment. For if the force of attraction of the hill had been only to that of the earth, as the matter in the hill to that of the earth, and had not been greatly increased by the near approach to the centre, the attraction thereof must have been wholly insensible. But now by

only supposing the mean density of the earth to be double to that of the hill, which seems very probable from other considerations, the attraction of the hill will be reconciled with the general law of the variation of attraction."

3. "We may now, therefore, be allowed to admit this law, and to acknowledge that the mean density of the earth is at least double to that of its surface Hence, also, the whole quantity of matter in the earth will be, at least, as great again as if it had all been composed of matter of the same density with that of the surface, or will be about four or five times as heavy as if it were all composed of water."

Mountains are divided into primary and secondary. The secondary mountains are still farther distinguished into original and derivative. The class of secondary, and perhaps also that of primary, may be subdivided into inert and ignivomous; into volcanic and pseudo volcanic. The volcanic have indeed hitherto been referred to the secondary mountains; but as several of the Andes are said to be volcanic, and as the materials of volcanic mountains have been found in some primary mountains, it is highly probable that primary mountains may also sometimes be the seat of volcanos. "The most extensive ranges of mountains, "says Mr. Kirwan," commonly consist of three chains, of which the internal are generally primary, and the external secondary; the internal is generally narrow, and often sharp; the external broader, and more extensive. Some mountains diverge from a high extensive platform; others shoot like branches from some considerable trunk; others cross each other in various directions, and some few stand single. Many mountains are steep on one side, and gently inclined to the plains on the other. The steepness, Mr. Kirwan thinks, often arises from the rupture of the strata, often from their decomposition, being more exposed to rain, and impetuous predominant winds, on one side than on the other. The gentle inclination often proceeds from the unequal extension of the strata, the lower being the most extensive, and the higher gradually narrower, often also from the failure and depression of the lower strata."

Nothing could be more easy, if all countries were diligently explored, than to determine the direction in which the principal ranges of mountains extend; yet, in the present state of geographical knowledge, this subject has given occasion to a considerable contrariety of opinions. Buffon supposes the highest mountains to be placed within the tropics, and that they are gradually lower as they approached the poles. M. Buache places the most elevated points of the great chain of mountains under the equatorial line.

The ingenious writer of the article mountain, in the Encyclopedia Britannica, affirms, with some hesitation, that the most elevated land on our globe is situated without the tropics, in the northern and southern hemispheres. "By examining, says he, the course of the great rivers, we find that they are in general discharged into three great reservoirs, the one under the line, the other two towards the poles." This, however, he does not mean to lay down as a thing universally true, but allows that, besides the two elevated belts, the whole surface of the earth is covered with innumerable mountains, either detached from one another, or in a continued chain.

In treating of mountains we shall, to avoid confusion on the one side, and a too te-

dious distinction on the other, range them in three classes, the primative, the secondary, and the volcanic, of each of which we shall treat in order.

The characteristics of primary mountains are thus enumerated by Mr. Kirwan:

1. "The absence of all organic remains (i. e. fossil shells and other petrefactions) from the interior part of their mass, and the composition of the stones and rocks of which they consist. Such remains are indeed found, but very rarely, deposited in the veins and cavities of these rocks, as if accidentally deposited through rifts, afterwards choaked up, and often in their summits."

2. "They commonly form the highest ridges in any chain, and the most extensive, but frequently also, when intermixed with secondary mountains, the height does not exceed two or three hundred feet."

3. "They never cover secondary mountains, but are often covered by them. Nor do they lean on the secondary, but the secondary often lean upon them, cover their flanks, and invest them: but they often cover each other."

4. "They are sometimes stratified, but more frequently in huge blocks; their strata never alternate with secondary strata. Some of them consist, for the greater part at least, of one species of stone or agregate. Some consist of various species, alternating with, passing into, or mixed with each other."

"Those mountains," says the writer of the before-mentioned article, "which form a chain, and which are covered with snow, may be considered as primative or antediluvian. They are like majestic bulwarks scattered on the surface of the globe, and greatly exceed the other mountains in height. In general their elevation is very sudden, and their ascent very steep and difficult. Their shape is that of a pyramid crowned with sharp and prominent rocks, on which no verdure is to be seen, but which are dry, naked, and, as it were, stripped of their soil, which has been washed away by the rains, and which present an awful and horrible aspect, sufficient to impress the coldest imagination with horror. These primitive mountains, which astonish the eye, and where winter only reigns, are condemned by nature to perpetual sterility. At the foot of them we frequently find paths less steep and winding than when we ascend to a greater height."

"They every where present thundering cascades, frightful precipices, and deep valleys. The depressions of excavations correspond with the quantity of water, the motion of which is accelerated in its fall, and which sometimes produces a total sinking or an inclination of the mountain. The wrecks to be found at the foot of most peaks shew how much they have suffered from the hand of time. Nothing meets the eye but enormous rocks, heaped in confusion upon one another, which prevent the approach of the human race. On the summits of these mountains, or high eminences, which are only a series of peaks frequently detached from one another, the prominent rocks are covered with eternal snow and ice, and surrounded with floating clouds, that are dispersed into dew. In a word, the rugged cliffs oppose an inaccessible rampart to the intrepidity of man, and nature exhibits a picture of disorder and decay."

Mountains of the first order form vast solitudes and horrid deserts, where the habitations of men are not to be seen, and their footsteps are seldom to be traced. By their

grandeur, their elevation, the variety of their positions, the sublime and awful exhibition of the wonders they contain, they elevate the mind, and fire the imagination of the observer. But these majestic eminences have other advantages which deserve our attention. They form the common retreat of a multitude of wild beasts, which are subservient to our use; there the bear, the lynx, the ermine, the martin, the fox, take up their abode, and thither the eagle and the vulture resort in safety. Mountains, likewise, afford subsistence to rein-deer, buffaloes, fallow-deer, roe-deer, and chamois; and they are visited by birds of passage, which, under the direction of instinct, follow the shortest road to the place of their destination. They produce medicinal plants, which scarcely ever grow elsewhere. They are also sometimes covered with deep forests, which, by the great height of their trees, announce their antiquity. The most precious stones, both for brilliancy and hardness, acquire their forms and colours in the fissures of the rocks; the internal rents of mountains are filled, and in a manner cemented by different metallic substances, while the grottos are furnished with numerous congelations, shining crystals, and substances of an extraordinary nature and figure.

The distinctive character of secondary mountains is the presence of organic remains, either in their natural or petrified state; or, at least, of their impressions below the surface, either entering into, and forming a part of the stony masses of which these mountains consist, or imbedded in them, or lying between their strata, or under them; there may be some, however, as those which evidently derive their origin from the disintegration of primitive mountains, in which no organic remains may be found. The secondary, even when otherwise independent, always rest on, and cover primary ones; but very commonly, also, they lean on their sides, or invest them, but they are never covered with primary. The strata of secondary mountains are so much the more irregular or inclined as they approach nearer to primary mountains. Secondary mountains or strata are not, in the opinion of Mr. Kirwan, all of equal antiquity. Some are derivative, being formed subsequently to the production of organic substances, and originating from disintegration. The principal character by which derivative mountains are distinguished, consists in their exhibiting vegetable substances or petrifactions, or, at least, their impressions, or land shells, as those of snails, or fluviatile shells, with either none, or scarcely any marine remains, though some of diluvian origin may exhibit these also.

Secondary mountains are either formed of one species of stone, or of strata of different species, one covering or alternating with the other: the former Mr. Kirwan calls unigenous, the latter polygenous: these are usually stratified, the former are not. In some different species are jumbled together, these our author calls faraginous; they are by some called tertiary, as resulting from the ruins of other mountains promiscuously heaped together. The strata of secondary mountains frequently correspond with each other in number, species, and thickness, in different mountains, not very far distant from each other.

The third class of mountains, of which we proposed to treat, are those which are referred to volcanic origin. These are either detached or surrounded with groups of little hills, the soil of which is heaped up in disorder, and the crust gravelly, and con-

fusedly arranged together. They have a wide mouth, in the shape of a funnel, towards the summit, and are composed of, or surrounded with, heaps of calcined and half vitrified bodies. They are supposed by some to have been formed of different strata, raised up and discharged into the air, upon the occasion of the irruption by subterranean fire. When very high mountains of this kind are covered with sea shells, their summits are considered as having formed a part of the bottom of the ocean. Mr. Kirwan, however, considers the number of volcanic mountains as much smaller than has been generally supposed, and that even those, which are undoubtedly of this description, seldom consist entirely of volcanic ejections.

"The bowels," says Buffon, "of those burning mountains called volcanos, contain sulphur, bitumen, and other inflammable materials, the effects of which are more violent than those of thunder, or of gun-powder, and they have in all ages astonished mankind, and desolated the earth. A volcano is an immense cannon, with an aperture often of more than half a league circumference. From this vast mouth are projected torrents of smoke and of flames, rivers of bitumen, of sulphur, and of melted metals, clouds of ashes and stones, and sometimes it ejects, to the distance of several leagues, rocks so enormous, that they could not be moved by any combination of human powers. The conflagration is so dreadful, and the quantities of burning, calcined, melted, and vitrified substances thrown out by the mountains are so great, that whole towns and forests have been buried, to the thickness of a hundred or two hundred feet, and sometimes form hills and mountains, which are only portions of these matters heaped up, and compacted into one mass. The action of the fire, and the force of the explosions are so violent that they produce by re-action, successions which shake the earth, agitate the sea, overturn mountains, destroy towns and buildings of the most solid materials."

These effects, though natural, have been regarded as prodigies; and though we often behold, in miniature, effects similar to those of volcanos; yet grandeur, from whatever scource it proceeds, has such an astonishing influence upon the imagination, that it is not surprising they should have been considered by some authors as vents to a central fire, and by the vulgar as mouths of hell. Astonishment produces fear, and fear is the source of superstition. All these phenomena, however, are only the effects of fire and of smoke. In the bowels of mountains there are veins of sulphur, bitumen, and other inflammable substances, together with vast quantities of pyrites, which foment when exposed to the air, or to moisture, and produce explosions proportioned to the quantity of inflammable matter. This is the true idea of a volcano, and it is easy for the naturalist to imitate the operation of these subterranean fires. A mixture of sulphur, of filings of iron, and of water, buried at a considerable depth below the ground, will exhibit, in miniature, all the appearances of a volcano: this mixture soon ferments to a degree of inflammation, throws off the earth and stones that cover it, and produces explosions every way similar to those of burning mountains.

This method of accounting for the origin of volcanos is very generally received by the learned. It is, however, acknowledged by Dr. Gregory, that it labours under one very considerable difficulty, "It seems," says he, "after all, difficult to conceive that such

extensive and intense fires should be maintained without the access of considerable quantities of air; that substance may, therefore, be possibly supplied by a communication with some extensive caverns, which may themselves receive it by openings at the distance of many miles from the crater of the volcano. It does not seem improbable that the volcanos, which now burn, may have a communication with the cavities and craters of extinguished volcanos, and thence derive a supply of air sufficient to account for the inflammation of large beds of pyrites and bituminous matters.

M. Buffon supposes that the seat of volcanic fires is situated but a little way below the bed of the mountains; but it appears more probable, that it is in general many miles below the surface of the earth, for the quantity of matter discharged from Etna alone, is supposed, on a moderate calculation, to exceed twenty times the original bulk of the mountain, and therefore could not have been derived from its contents alone, but also from the deeper recesses of the earth.

As the eruptions of volcanos are frequently attended with earthquakes, and as those countries, which are most exposed to one of these calamities, are frequently visited by the other, it seems proper in this place to treat of earthquakes. In doing this, we shall hazard no opinion of our own, but having collected the sentiments of several learned men, leave the reader to pursue the subject further at his leisure, and embrace that hypothesis which, after a diligent examination, he may be inclined to approve. The most remarkable circumstances attending earthquakes are here enumerated

1. Where there are any volcanos or burning mountains, earthquakes may reasonably be expected more frequently than in other countries.

2. If the volcano has been for a long time quiet, a violent earthquake is to be feared, and vice versa. But to this there are many exceptions.

3. Earthquakes are generally preceded by long droughts, but they do not always come on as soon as the drought ceases.

4. They are also preceded by electrical appearances in the air; such as the aurora borealis, falling stars, &c. but this does not hold universally.

5. A short time before the shock, the seas swell up, and make a great noise, fountains are troubled, and send forth muddy water; and the beasts seem frighted, as if sensible of an approaching calamity.

6. The air at the time of the shock is generally calm and serene; but afterwads becomes obscure and cloudy.

7. The shock comes on with a rumbling noise, something like that of carriages; sometimes a rushing noise like wind, and sometimes explosions like the firing of cannon, are heard. Sometimes the ground heaves perpendicularly upwards, and sometimes rolls from side to side. Sometimes the shock begins with a perpendicular heave; after which the other kind of motion commences. A single shock is of but very short duration, the longest scarcely lasting a minute, but they frequently succeed each other, at short intervals, for a considerable length of time.

8. During the shock chasms are made in the earth; from which, sometimes flames, but oftener great quantities of water, are discharged. Flames and smoke are also

emitted from places of the earth where no chasms can be perceived. Sometimes these chasms are but small; but in violent earthquakes they are frequently so large, that whole cities sink into them at once.

9. The water of the ocean is affected even more than the dry land. The sea swells to a prodigious height; much more than we could suppose it raised by the mere elevation of the bottom by the shock. Sometimes it is divided to a considerable depth; and great quantities of air, flames, and smoke, are discharged from it. The like irregular agitations happen to the waters of ponds, lakes, and even rivers.

10. The shock is felt at sea as well as on land. Ships are affected by a sudden stroke, as if they had run aground, or struck upon rocks.

11. The effects of earthquakes are not confined to any particular district or country, but often extend to very distant regions, though no earthquake hath yet been known extensive enough to affect the whole globe at one time In those places also when the shock is not felt on dry land, the irregular agitation of the waters is felt very remarkably.

Earthquakes are distinguished by Buffon into two kinds. "The one," says he, "are occasioned by the action of subterraneous fires, and by the explosion of volcanos, and are only felt at small distances, previous to, or during the time of eruptions."

"When the inflammable matter in the bowels of the earth begins to ferment and to burn, the fire makes an effort to escape in every direction; and if it find no natural vents, it forces a passage, by elevating and throwing off the earth above it. In this manner volcanos commence, and their efforts continue in proportion to the quantity of inflammable matter they contain. When the quantity of inflammable matter is inconsiderable, it produces only an earthquake, and exhibits no mark of a volcano; the air generated by subterranean fire may also escape through small fissures; and in this case likewise, it will be attended with a succession of the earth. But when the quantity of inflamed matter is great, and when it is confined on all sides by solid and compact bodies, an earthquake and a volcano are the necessary consequences.'

"But all these commotions constitute only the first species of earthquakes, which are not felt but in the neighbourhood of the places where they happen. A violent eruption of Etna, for example, will shake all the island of Sicily; but it will never extend to the distance of three or four hundred leagues. When Vesuvius bursts open a new mouth, it excites an earthquake in Naples, and in the neighbourhood of the volcano; but these earthquakes never shake the Alps; nor do they extend to France or other countries distant from Vesuvius. Thus earthquakes produced by volcanos are limited to a small space; they are nothing but the effects of the re-action of the fire, and they shake the earth in the same manner as the explosion of a powder magazine occasions an agitation to the distance of several leagues."

But there is another species, which are very different in their effects, and perhaps also in their cause. These earthquakes are felt at great distances, and shake a long tract of ground, without the intervention either of a new volcano, or of eruptions in those that already exist. There are instances of earthquakes that have been felt at the same time in Britain in France, in Germany, and in Hungary. These earthquakes always extend

more in length than in breadth. They shake a zone, or belt of earth, with more or less violence in different places: and they are generally accompanied with a hollow noise, like that of a heavy carriage rolling with rapidity.

As to the causes of this species of earthquake, it must be remarked, that the explosion of all inflammable substances, like that of gunpowder, generates a vast quantity of air; that this air is highly rarefied by the heat; and that its effects, from the compression it receives by being confined in the bowels of the earth, must be exceedingly violent. Let us suppose, that at the depth of 100 or 200 fathoms, there are a vast collection of pyrites and sulphureous bodies, and that they are inflamed by the fermentation produced by the admission of the water into them, or by other causes. What must be the effect? In the first place, these substances are not placed in horizontal beds like the antient strata; they are lodged on the contrary, in the perpendicular fissures, in subterraneous caverns, and other places to which the water has access. When inflamed they generate a vast quantity of air, the spring of which, by being compressed in a small space, like that of a cavern, will not shake the earth immediately above, but will search for passages in order to expand and make its escape. Caverns, and the channels of subterraneous rivulets and springs, are the only natural passages for the rarefied air. Into these, therefore, it will rush with impetuosity, and produce in them a furious wind, the noise of which will be heard on the surface; and it will be attended with vibrations or successions of the ground. This subterraneous wind produced by fire, will extend the whole length of the caverns or channels, and occasion a shaking, more or less violent, in proportion to its distance from the heat, and to the width or narrowness of the canals. But this motion must necessarily run in a longitudinal direction; and the shaking must of course be felt over a long belt of ground.

Dr. Gregory accounts for earthquakes in a somewhat different manner. "The sudden explosions," says he, "which take place from volcanos, probably depend on the access of a quantity of water, which enters through some fissure communicating with the sea, or which is derived from other sources in the earth."

"If this mass of water is sufficiently great, it will extinguish the volcano; if not, it will be converted into steam, the expansive force of which far exceeds that of gunpowder. The elastic fluid thus formed, either finds vent at the mouth of the volcano, or if the superincumbent weight should be too great, it will force a passage between the strata of the earth, and occasion that undulatory, but sometimes violent motion, which is called an earthquake. From various facts, demonstrative of the cohesion and elasticity of bodies, we are warranted in concluding that the different strata of which the earth is composed will adhere together, and that a more free passage will be afforded to any intervening body between the strata than directly through them. If the confined fire acts directly under a province or town, it will heave the earth perpendicularly upwards, and the shocks will be more sudden and violent. If it acts at a distance, it will raise that tract obliquely, and the motion will be more oblique, undulatory, and tremulous."

Other philosophers have had recourse to electricity, particularly Stukely, Beccaria, and Priestly.

Dr. Stukley published a paper soon after the earthquakes which affected England in 1749 and 1750, wherein, after having assigned his reasons for rejecting the opinions which had been entertained on the subject, he seeks to establish a new hypothesis.

"The weather had been uncommonly warm for five or six months before the earthquake at London, so that the earth must have been in a state peculiarly ready for an electrical shock. All vegetables had been uncommonly forward, and electricity is known to quicken vegetation. The aurora borealis had been frequent about that time; and just before the earthquake, had been twice repeated in such colours as had never been seen before. It had also removed southerly, so that the Italians, and those among whom earthquakes were frequent, actually foretold the earthquake. The year had been remarkable for fire balls, lightning, and coruscations; and these have been rightly judged to be of an electrical nature."

In these circumstances of the earth and air, nothing, he says, is wanting to produce an earthquake, but the touch of some non-electric body, which must necessarily be had from without the region of the atmosphere. Hence he infers, that if a non-electric cloud discharge itself upon any part of the earth, in that highly electrical state, an earthquake must necessarily ensue. As the discharge from an excited tube produces a commotion in the human body, so the discharge of electric matter from the compass of many miles of solid earth must needs be an earthquake; and the snap from the contact the horrid uncouth noise attending it.

A similar hypothesis was advanced by Signor Baccaria, without knowing any thing of Dr. Stukely's discoveries. But this learned Italian imagined the electric matter, which occasioned earthquakes, to be lodged deep in the bowels of the earth, agreeably to his hypothesis concerning lightning. He supposed that the electric matter is continually darting from the clouds in one place at the same time that it is discharged from the earth at another; and consequently that the clouds serve as conductors to convey the electric fluid from those places of the earth which are overloaded with it, to those which are exhausted.

This theory being admitted, there will, he thinks, be little difficulty in attributing earthquakes to the same cause. For if the equilibrium of the electric matter be by any means lost in the bowels of the earth, so that the best method of restoring it shall be by the fluid bursting into the air, and traversing several miles of the atmosphere, to come at the place where it wanted; it may easily be imagined that violent concussions will be given to the earth by the sudden passage of so powerful an agent. This, in his opinion, was confirmed by the flashes of light, exactly resembling lightning, which have been frequently seen to rush from the top of mount Vesuvius, at the time that ashes and other light matters have been carried out of it into the air, and dispersed uniformly over a large tract of country. And it is well known that volcanos have a near connection with earthquakes. A rumbling noise like thunder, and flashes of light rising from the ground, ve been generally observed to attend earthquakes. And lightning itself has been to be attended with small shakings of the earth. So also ignes fatui in mines

he looked upon as an argument that the electric fluid was sometimes collected in the bowels of the earth.

Dr. Priestly, in his history of electricity, observes upon these theories, that a more probable hypothesis may perhaps be formed out of both of them. "Suppose," says he, "the electric matter to be some way or other accumulated, in one part of the surface of the earth, and on account of the dryness of the season, not easily to diffuse itself; it may, as S. Beccaria supposes, force its way into the higher regions of the air, forming clouds, in its passage, out of the vapours which float in the atmosphere, and occasion a sudden shower, which may further promote the passage of the fluid. The whole surface, thus unloaded, will receive a concussion, like that of any other conducting substance on parting with, or receiving a quantity of the electric fluid. The rushing noise will likewise sweep over the whole extent of the country. And upon this supposition also, the fluid, in its discharge from the country, will naturally follow the course of rivers, and also take the advantage of any eminences to facilitate its ascent into the higher regions of the air."

The origin of islands is a subject which has been the occasion of much dispute. Some have supposed them as old as the creation, others are of opinion that the islands were formed at the deluge, others think that there have been new islands formed by the casting up of vast heaps of earth, clay, mud, sand, &c.; others think that they have been separated from the continent by violent storms, inundations, earthquakes, &c.

Whether the first or second of these opinions be well grounded we shall soon have occasion to examine; and that they have been formed in each of the last-mentioned ways we have abundant reason to conclude. Another way, however, in which islands are frequently formed in the South Sea, is by the work of the coraline insects.

Having now considered the natural divisions of the earth, we pass on to examine those of the water. Water was universally considered as a simple elementary substance till the chemists of the present age proved, by experiments, that it is in reality a compounded body. Its principles have been ascertained both by composition and decomposition; and 100 parts of water are found to consist of 85 parts of vital, and 15 of inflammable air.

As, however, nothing can be more contrary to the first suggestion of the senses than this discovery of modern chemists, it will be necessary to describe the experiments by which it was made. Mr. John Warltire, lecturer in natural philosophy, had long entertained an opinion that the question whether heat be a heavy body might be determined by burning inflammable air mixed with atmospherical air. For some time he was deterred from trying the experiment, from an apprehension that the consequences of passing the electrical spark through so combustible a mixture, might be attended with danger; but at length being encouraged by Dr. Priestly, he prepared an apparatus for the purpose. He got a copper ball, weighing 12 ounces, and sufficient to contain three wine pints, with a screw stopper adapted to it, so that no air could escape. When he filled this ball with inflammable and common air, and made the electric spark to

through it, a loss of weight was observed, upon an average, of about two grains. When the same experiment was made in a close glass vessel, the inside of the glass, though clean and dry before the operation, became immediately wet with dew, and was lined with a sooty substance. When Mr. Warltire saw the substance, he said to Dr Priestly that it confirmed an opinion he had long entertained, that common air deposits its moisture when it is phlogisticated. After this experiment had been repeated by Dr. Priestly, and Mr. Warltire, in company, they next fired a mixture of vital and inflammable air, but the only effects which they observed were, that the light was much more intense, and the heat much greater. Mr. Cavendish, who repeated these experiments with a vessel which held 24,000 grains, found no sooty substance, but the inside of the glass became dewy. That he might examine the nature of the dew, he burned 500,000 grain measures of inflammable air with 2½ times that quantity of common air, and the burned air was made to pass through a glass cylinder, which had no taste or smell, which left no sensible sediment when evaporated to dryness.

These experiments gave rise to many others which were performed in greater variety, and to better purpose, in proportion as the knowledge of the different aerial fluids increased, till at length the composition of water was thoroughly proved, and received the concurrent approbation of the learned.

This very useful and necessary fluid presents itself to our notice in three distinct forms, namely, in its liquid state, in the state of vapour, and, lastly, in a frozen state. Water, when pure, and in its fluid state, is transparent, colourless, and without smell. It adheres to most bodies which come in contact with it, it pervades porous substances, and dissolves gummy and saline matters, and extinguishes fire. Water, when fluid, is not in its msot simple state, for its fluidity depends on a certain quantity of the matter of heat which enters into combination with it, and insinuating itself between the particles of the water, renders them capable of moving in all directions. We are supplied with water either from the atmosphere, whence it descends in the form of rain, hail, or snow, or from the earth, which it sends forth in springs and rivulets

In the beginning of the eighteenth century, the philosophical world was agitated by a debate concerning the origin of those waters which are necessary to the supply of rivers, &c. One party contended strongly for the existence of a large mass of water within the bowels of the earth, which supplied not only the rivers, but the ocean itself; at the head of those we may place the ingenious, but fanciful, Burnet. The French philosophers, on the contrary, asserted that the waters of the ocean were conveyed, by subterraneous passages, to the land, and being filtrated in their passage, returned again to the sea by the course of the rivers; but this opinion has been rejected, as contrary to the known laws of hydrostatics. A third hypothesis is that of Mariotte, a diligent observer of nature According to him, the rain water which falls upon the hills and mountains, penetrating the surface, meets with clay or rocks contiguous to each other; along which it runs, without being able to penetrate them, till, being got to the bottom of the mountain, or to a considerable distance from the top, it breaks out of the ground

and forms springs. This opinion was very generally adopted, till it was proved, by experiment, that the quantity of water raised in vapour was considerably greater than that which falls in rain or snow.

That which is now considered as the true origin of springs, remained undiscovered till Dr. Halley, in making his celestial observations on the top of the mountains of St. Helena, about 800 yards from the level of the sea, found that the quantity of vapour which fell there, even when the sky was clear, was so great, that it very much impeded his observations, by covering his glasses with water every half quarter of an hour; and upon that he attempted to determine, by experiment, the quantity of vapour exhaled from the surface of the sea, as far as it arises from the heat, in order to try whether that might be a sufficient supply for the water continually discharged by fountains. The process of the experiment was as follows: He took a vessel of water, salted to the same degree with that of sea water, in which he placed a thermometer; and by means of a pan of coals, brought the water to the same degree of heat, which is observed to be that of air in our hottest summer; this done, he fixed the vessel of water with the thermometer in it, to one end of a pair of scales, and exactly counterpoised it with weights on the other: then at the end of two hours, he found, by the alteration made in the weight of the vessel, that about a sixtieth part of an inch of the depth of the water was gone off in vapour; and therefore, in twelve hours, one tenth of an inch would have gone off. Now this accurate observer allows the Mediterranean Sea to be forty degrees long, and four broad (the broader parts compensating for the narrower, so that its whole surface is 160 square degrees); which, according to the experiment, must yield at least 5,280,000,000 tons of water; in which account no regard is had to the wind and the agitation of the surface of the sea, both which undoubtedly promote the evaporation.

It remained now to compare this quantity of water with that which is daily conveyed into the same sea by the rivers. The only way to do which, was to compare them with some known river; and accordingly he takes his computation from the river Thames; and, to avoid all objections, makes allowances, probably greater than what were absolutely necessary.

The Mediterranean receives the following considerable rivers: the Iberus, the Rhone, the Tyber, the Po, the Danube, the Niester, the Borysthenes, the Tanais, and the Nile. Each of these he supposes to bring down ten times as much water as the Thames, whereby he allows for smaller rivers which fall into the same sea. The Thames then, he finds by mensuration, to discharge about 20,300,000 tons of water in a day. If, therefore, each of the above rivers yield ten times as much water as the Thames, it will follow that all of them together yield but 1827 millions of tons in a day, which is but little more than one-third of what is proved to be raised in vapour out of the Mediterranean in the same time. We have, therefore, from hence, a source abundantly sufficient for the supply of fountains.

Now, having found that the vapour exhaled from the sea is a sufficient supply for the fountains, he proceeds, in the next place, to consider the manner in which they are

raised, and how they are condensed into water again, and conveyed to the sources of springs.

In order to this he considers, that if an atom was expanded into a shell or bubble, so as to be ten times as big in diameter as when it was water, that atom would become specifically lighter than air, and therefore would rise so long as the warmth, which first separated it from the surface, should continue to distend it to the same degree; and, consequently, that vapours may be raised from the surface of the sea in that manner, till they arrive at a certain height in the atmosphere, at which they will find air of an equal specific gravity with themselves. Hence they will float till, being condensed by cold, they become specifically heavier than air, and fall down in dew; or being driven by the winds against the sides of mountains, (many of which far surpass the height to which vapours of themselves ascend) are compelled by the stream of air to mount up with it to the top of them; where, being condensed into water, they presently precipitate, and, gleeting down by the crannies of the stones, part of them enter into the caverns of the hills, which being once filled, all the overplus of water that comes thither runs over at the lowest place, and breaking out by the sides of the hills form single springs. Many of these running down by the valleys between the ridges of the hills, and coming to unite form little rivers or brooks; many of these again meeting in one common valley, and gaining the plain ground, being grown less rapid, become a river; and many of these being united in one common channel, make such streams as the Rhine and the Danube, which latter, he observes, one would hardly think to be a collection of water condensed out of vapours, unless we consider the vast tract of land that river drains, and that it is the sum of all those springs which break out on the south side of the Carpathian mountains, and on the north side, the immense ridge of the Alps, which is one continued chain of mountains from Switzerland to the Black Sea.

Thus one part of the vapours is blown on the land, and returned by the rivers into the sea, whence it came. Another part falls into the sea before it reaches the land; and this is the reason why the rivers do not return so much water into the Mediterranean as is raised in vapour. A third part falls on the lowlands, where it affords nourishment to plants; yet it does not rest there, but is again exhaled in vapour by the action of the sun, and is either carried by the winds to the sea, to fall in rain or dew there, or else to the mountains, to become the sources of springs.

However, it is not to be supposed that all fountains are owing to one and the same cause; but that some proceed from rain and melted snow, which subsiding through the surface of the earth, makes its way into certain cavities, and thence issues out in the form of springs; because the waters of several are found to increase and diminish, in proportion to the rain which falls. That others, again, especially such as are salt, and spring near the sea-shore, owe their origin to sea water percolated through the earth; and some to both these causes: though, without doubt, most of them, and especially such as spring near the tops of high mountains, receive their waters from vapours, as before explained.

There are some springs which exhibit a very curious phenomenon, a kind of tide or intermission, by which the water, at certain periods, appears to rise to a considerable height, and gradually to subside. These are called intermitting springs. It was long imagined that these fountains were replenished by some connection with the sea; that the water was freshened by its progress through sand and earth; and that their rising and falling depended upon the tide. It was, however, found that the periods of the water rising and falling in these springs, did not correspond, in point of time, with the tides of the adjacent seas, and that the periods were different in different springs, contrary to the regular rising and falling of tides in the ocean.

The phenomenon has been very satisfactorily explained, upon a simple and obvious principle, that of the syphon. A syphon is a bent tube, one branch of which is shorter than the other. In order to make use of this instrument, it is necessary to place the extremity of the short branch in a vessel that is filled with water, or any other fluid. If the air then is drawn by suction out of the syphon at the extremity of the long branch, it will begin to flow, and will not cease while the short branch remains immersed in the fluid. It is easy to see that the pressure of the air upon the surface of the fluid in the vessel, is the cause of its discharge through the syphon.

To account, therefore, for the intermitting springs, we have only to suppose, that a cavity or receptacle is formed in the bowels of the hill or mountain, where the spring is situated, which gradually fills with water like other reservoirs; by the interposition of some stratum of stone or rock, the tube or cavity of which conveys the water from this receptacle to the spring or mouth where it issues, is bent in the form of a syphon, the bent of which is considerably higher than the bottom of the reservoir. Wherever, therefore, the reservoir or receptacle is filled as high as the bent of the tube, the water will rise to its level, and begin to flow into the spring, which will continue till the receptacle is exhausted. While this process is going on, the water in the springs will rise; and as soon as the receptacle is exhausted, the water, being drawn off by a stream or rivulet, will appear to fall in the well of the spring, and will continue to fall till the receptacle is again supplied to the height of the syphon or tube when the process of filling will be again renewed.

There are other springs which are of a higher temperature than the atmosphere of the country in which they are found. The most probable hypothesis concerning them is, that the same causes operate to produce them which produce volcanos; but the subject has not yet been sufficiently investigated to enable us to speak with certainty.

With any person, who has carefully observed the course of rivers, and traced them to their sources, there can be little doubt that they are formed by the confluence of springs, or of the little streams or rivulets that issue from them; with, perhaps, the exception of those which proceed from lakes, where the reservoir is ready formed, and generally by the same means. That well-informed, though too speculative philosopher, the Count de Buffon, has made a considerable number of observations upon rivers, some of which we shall present to the reader as nearly as possible in his own words.

"We may lay it down as a fact, that in general, the rivers and mediterranean waters of Europe, Asia, and Africa, run, or stretch more from east to west than from north to south. This is a natural consequence of the parallel direction of the different chains of mountains. Besides the whole continent of Europe and of Asia is broader from east to west than from north to south; for the direction of mountains may be considered in two points of view; in a long and narrow continent like that of South America, which contains only one principal chain of mountains, extending from south to north, the rivers not being restrained by any parallel chain, must run in channels perpendicular to the range of these mountains, that is, either from east to west or from west to east; and this in fact is the direction of all the great rivers in America. But though, both in the old and in the new continents, the great rivers run in the same direction, this effect is produced by different causes. The rivers in the old continent run from east to west, because they are confined by many parallel ridges of mountains that run from west to east; but those of America observe the same direction, because there is only one chain of mountains stretching from north to south. The rivers generally occupy the middle of the valleys, or the lowest ground between two opposite hills; if the two hills have nearly an equal declivity, the river runs nearly in the middle between them, whether the intermediate valley be broad or narrow. If, on the contrary, the declivity of one of the hills be greater than that of the other, the river will not occupy the middle of the valley, but approach to the steepest hill, in proportion to the superiority of its declivity. In this case the middle of the valley is not the lowest ground between the hills, but lies much nearer the steepest of them; and consequently the river must occupy this space. In process of time, however, the declivity of the steepest hills is diminished by the rains, the melting of snow, &c. The steeper any hill is, it loses greater quantities of earth, sand, and gravel, by the operation of rains, and these substances are carried down into the plain with a proportionably greater rapidity, and, of course, force the river to change its channel, or, in other words, to retire into a lower part of the valley. To this it may be added, that as all rivers occasionally swell, and overflow their banks, they carry off mud and sand, which they deposit in different parts of the valley; and as sand and gravel are often accumulated in channels themselves, these circumstances make the water overflow, and alter the direction of their course. Nothing, accordingly, is more common than to find in valleys many old channels in which rivers have formerly run, especially when they are rapid, subject to inundations, and carry down great quantities of sand and mud.

In plains and extensive valleys, watered by large rivers, the channels of the rivers are commonly the lowest parts: but the surface of the water in the river is somewhat higher than the adjacent ground. When, therefore, a river begins to overflow, it soon covers a considerable part of the plain; but the banks remain longest uncovered by the water. This elevation of the ground on the banks of rivers, is occasioned by mud and sand being deposited in the time of inundations. The water during great swells is always exceedingly foul and muddy, when it begins to overflow, it runs slowly over the banks, and,

by depositing the mud and sand, it gradually purifies as it advances into the plain; thus all the mud and substances that are not carried down by the current, are deposited upon the banks, and gradually elevate them above the rest of the plain.

In the interior parts of countries, and at great distances from the sea, the course of rivers is straight; and the frequency of their windings increases proportionably as they approach to their termination. Buffon was informed by M. Fabuy, who performed many journeys in the western parts of North America, that travellers, and even the savages, form pretty accurate computations of their distance from the sea, by observing the courses of the rivers. If a river run straight 15 or 20 leagues, they know themselves to be a great way from the coast; but where the sinuosities are frequent, they conclude that the sea is not very distant.

The surface of rivers, taken from bank to bank, is not level; but the middle of the stream is either higher or lower, according to circumstances, than the water of the sides. When a river suddenly swells its rapidity increases; and, if its course be straight, the middle of the stream where the current is greatest, rises and forms a sensible convexity. On the other hand, near the mouths, though the current be very rapid, the water near the sides is commonly more elevated than that of the middle; the river, in this situation, has a concave form, the lowest point of which is the middle of the stream. This always happens as far as the influence of the tides is perceptible, which in large rivers extends sometimes to 100 or 200 leagues from the sea.

It is likewise a fact well known, that the streams of rivers continue their motion a considerable way through the waters of the sea. In this case, the water of the river has two opposite motions. The middle, or current, precipitates itself towards the sea; but the action of the tide produces a counter current, or regorging, which elevates the water on the sides, while that in the middle descends; and as all the water must be carried down by the current, that on the sides descends towards the middle of the stream, with a quickness proportioned to the elevation it receives from the regorging of the tide.

When a great swell of the river is about to happen, the watermen perceive a particular motion, which they call a moving at the bottom, that is, when the water at the bottom moves with an unusual velocity, which, according to them, always indicates the approach of a sudden swell. The motion and weight of the superior waters, though not yet arrived, fail not to act upon the waters of the inferior parts of the river, and to communicate motion to them: for a river, in some respects, may be compared to a tube, and its channel to a long canal, in which every motion must be communicated from one end of it to the other. Now, independent of the motion of the superior waters, their weight alone may increase the celerity of the river, and, perhaps, make it move quickest at the bottom, for it is well known that, when several boats are all at once pushed into a river, they increase the motion of the water below, and retard that of the superior water. The celerity of running waters is not in exact proportion to the declivity of their channels. A river with a uniform declivity, double to that of another, ought not, it would appear, to run with more than double celerity: but its celerity is much more quick, being sometimes triple, sometimes quadruple, &c. The celerity depends more

on the quantity of water, and on the weight of the superior waters, than upon the degree of descent.

The manner in which inundations are produced merits particular attention. When a river swells, its celerity uniformly increases, till it begins to overflow the banks: from that moment its rapidity is checked, which is the reason why inundations always continue several days; for, though the quantity of water should be diminished after the commencement of the inundation, it would, notwithstanding, continue to overflow, because this circumstance depends more on the celerity than the quantity of water. If it were otherwise, rivers would often overflow their banks for an hour or two, and then retire to their channels, which never does happen. An inundation, on the contrary, always lasts some days, supposing the rains have ceased, and less water run into the river; because the overflowing of waters diminishes their celerity; and, consequently although the same quantity of water arrives not in the same time as formerly, the effect is the same as if a large quantity had been brought down. It may, likewise, here be remarked, that if a high wind blows contrary to the current of the river, the inundation will be increased by this occasional cause, which diminishes the celerity of the water; but if the wind blows in the direction of the current, the inundation will be less, and retire more quickly.

Inundations are generally greatest in the superior parts of rivers, because the velocity of a river uniformly increases till it empties itself in the ocean.

Upon the surface of the earth there are elevated countries that seem to be points of partition marked out by nature for the distribution of the waters. In Europe is one of these, Mount Saint Gothard, and its environs. Another point is this country situated between the provinces of Belozena and Wologda, in Moscovy, from which many rivers descend, some into the White Sea, some into the Black, and some into the Caspian. In Asia there are several points of partition, as the country of the Mogul Tartars, some of whose rivers run into the sea of Nova Zembla, others into the gulph of Linschoten, others into the sea of Corea, and others into that of China; and the lesser Thibit, the rivers of which run into the Chinese sea, into the gulph of Bengal, the gulph of Cambay, and the lake Aral. The Province of Quito, in America, discharges its rivers into the South and North seas and into the gulph of Mexico.

There are in the old continent about 430 rivers, which directly fall into the ocean, or into the Mediterranean and Black Seas. But in the new continent, Buffon numbers only 145 that fall immediately into the sea. He takes no rivers into this account that are not equal to the Somme in Picardy.

Most countries that are furnished with large rivers, are subject to periodical inundations; and those rivers which have long courses overflow with the greatest.

Though the declivity of rivers does in general diminish gradually till they arrive at the ocean, yet in some places their declivity is more sudden, and forms what is called a cataract, which is nothing else than an unusually rapid fall of the water. Several of these we shall have occasion to describe in the progress of this work.

"Lakes," "says the distinguished naturalists whose observations we have been now re-

citing, "differ from mediterranean seas; the former derive no water from the ocean; on the contrary, when they communicate with seas, they are constantly discharging water into them. Thus the Black sea, which some philosophers have regarded as a branch of the Mediterranean, and of course an appendage to the ocean, is only a lake; because in place of receiving any supplies from the Mediterranean, its waters run with rapidity through the Bosphorous, in the lake called the sea of Marmora, and from thence through the straits of the Dardanelles into the Grecian sea."

"Lakes are of three kinds, those which neither receive nor discharge rivers; those which both receive and discharge; and others which only receive rivers. The Caspian, lake Arial, and the Dead sea, are of the last kind. There is, however, not one of these species in Europe of any consideration, and very few in the world. Those lakes which neither receive nor give rise to any river are more numerous. They are a kind of swamps which collect the rain water; or they may originate from subterraneous waters, which issue in low grounds, from which there is no fall to carry them off. Those rivers that overflow may also leave stagnating waters upon the land, which remain a considerable time, and are recruited by subsequent inundations. But the most numerous, and most extensive lakes are those which both receive and give rise to rivers. Such is the lake of Geneva, lake Ladoga, lake Onega, and many others."

All lakes that give rise to rivers, and all those which occur in the course of rivers, or which border upon and discharge their waters into rivers are not salt. Almost all those, on the contrary, which receive rivers, and give rise to none, are salt.

With regard to those which neither receive nor discharge rivers, they are either salt or fresh according to their origin. Those in the neighbourhood of the sea are commonly salt, and those at a distance from it are fresh; because the former have originated from inundations of the sea, and the latter from fresh fountains.

We are now led to consider that vast body of water which surrounds the globe of earth, and is called the sea or the ocean. Its surface, according to the most accurate calculations, is to that of the land as three to one, so that, supposing the superficies of the whole globe to be 170 981,012 square miles, the ocean extends over 128,235,759. To ascertain its depth is impossible, as it has never been sounded to a greater depth than a mile and 66 feet. Two observations may, however, be here mentioned.

1. That the sea grows gradually deeper as it leaves the shore, though the numerous rocks and islands that are to be met with prove that this rule is not uniformly true.

2. Along the coasts, where the depth of the sea is well known, it has always been found proportioned to that of the shore.

"I have made it my general observation, says the celebrated navigator Dampier, "that where the land is fenced with steep rocks and cliffs against the sea, there the sea is very deep, and seldom affords anchor ground; and on the other side, where the land falls away with the declivity into the sea (although the land be extraordinarily high within,) yet there are commonly good soundings, and consequently anchoring; and as the visible declivity of the land appears nearer at the edge of the water, whether pretty steep or more sloping so we commonly find our anchor ground to be more or less deep or steep;

therefore we come nearer the shore, or anchor further off, as we see most convenient; for there is no coast in the world that I know, or have heard of, where the land is of a continual height without some small valleys or declivities which lie intermixed with the high land."

"They are the subsiding of valleys or low lands that make dents in the shore and creeks, small bays, and harbours, or little cones, &c. which afford good anchoring, the surface of the earth being there lodged deep under water. Thus we find many good harbours on such coasts, where the land bounds the sea with steep cliffs, by reason of the declivities or subsidings of the land between those cliffs: but when the declension from the hills or cliffs is not within land between hill and hill, but as on the coast of Chili and Peru, the declivity is towards the main sea, or into it, the coast being perpendicular or very steep, from the neighbouring hills, as in those countries from the Andes that run along the shore, there is a deep sea, and few or no harbours or creeks."

If the same reasoning may be applied at every distance from the shore, we must conclude that the greatest depth of the sea does not exceed six miles, as that is the greatest perpendicular height of any known mountains. Mr. Kirwan, however, thinks very differently on the subject, and believes the different seas and oceans to contain, at least, forty eight-times more water than they were supposed to do. M. de la Place, says he, calculating their average depth, not from a few vague and partial soundings, for such they have ever been (the polar regions having been never sounded, particularly the antarctic,) but from a strict application of the theory of tides, to the height to which they are known to rise in the main ocean, demonstrates that a depth reaching only half a league, or even two or three leagues, is incompatible with the Newtonian theory, there is no depth under four leagues can reconcile it with the phenomena.

The bottom of the sea, as far as it has been explored, bears a great resemblance to the surface of the dry land, being, like it, full of plains, rocks, caverns, and mountains, some of which are abrupt, and almost perpendicular, while others rise with a gentle declivity, and sometimes tower above the water and form islands. Neither do the materials which compose the bottom of the sea differ from those which compose the basis of the dry land. If we dig to a considerable depth, in any part of the earth, we uniformly meet with rock; the same thing holds in the sea. The strata too are of the same kinds, and disposed in the same manner. Over those natural and original strata a bed has generally been formed of different materials, in different places. It consists frequently of muddy tartareous substances, firmly cemented together, sometimes of shells or corals reduced to powder, and near the mouths of rivers it is generally composed of fine sand or gravel. The bottom of the sea, likewise, resembles the land in another particular; many fresh springs, and even rivers, rise out of it, which, displacing the salt water, render the lower parts of the sea, wherever they abound, quite fresh. An instance of this kind occurs near Goa, and another in the Mediterranean sea. Whether the sea was originally created salt, or has derived its saltness from collections of saline matter situated at its bottom, or from saline particles brought into it by rivers, has been the subject of much dispute. Philosophers have embraced each of these different opi-

nions, and supported them by plausible arguments; but as no accurate observations on the degree of the saltness of the ocean in particular latitudes were made till the last century, it does not seem at present possible to ascertain what was the state of the sea at any considerable distance of time, nor, consequently, whether its saltness increases, decreases, or is stationary. It has been, however, observed, that the saltness of the ocean increases with its depth, and is greater in warm than in cold climates.

It is a fact well known, though contrary to the opinion of the antients, that the sea in the polar regions is much encumbered with ice. Some have, however, supposed that all this is really produced in fresh water, and brought down by the rivers, so that wherever it is met with it may be considered as an indication of land. This is even used as an argument by Buffon, as a proof of the existence of a vast southern continent; but since all attempts to discover that continent have been unavailing, it has been less generally regarded. It is now well known that great great quantities of ice are formed at a distance from land. Sea ice is of two kinds, field ice, which extends along the shore, and is only two or three feet thick, and mountain ice, which abounds in the middle of the ocean.

The sea has three kinds of motion. 1. The first is that undulation which is occasioned by the wind. This motion is entirely confined to the surface; the bottom, even during the most violent storms, remains perfectly calm. Mr. Boyle has remarked, from the testimony of several divers, that the sea is affected by the winds only to the depth of six feet. It would follow from this, that the height of the waves above the surface does not exceed six feet, and that this holds in the Mediterranean, at least, we are informed by the Compte Marsigli, though he also sometimes observed them, during a most violent tempest, rise two feet higher.

2. The second kind of motion is that continual tendency which the whole water in the sea has towards the west. It is greater near the equator than about the poles; and, indeed, cannot be said to take place at all in the northern hemisphere beyond the tropic. It begins on the west side of America, where it is moderate; hence that part of the ocean has been called Pacific. As the waters advance westward, their motion is accelerated, so that after having traversed the globe, they strike with force on the eastern shore of America. Being stopped by that continent, they turn northward, and run with considerable impetuosity into the gulph of Mexico; from thence they proceed along the coast of North America, till they come to the south side of the great bank of Newfoundland, when they turn off, and run through the Western Isles. This current is called the Gulph Stream. It was first accurately described by Dr. Franklin, who remarked also, that the water in it having been originally heated in the torrid zone, cools so gradually in its passage northward, that even the latitude might be found in any part of the stream by means of a thermometer. This motion of the sea westward has never been explained: it seems to have some connection with the trade winds, and the diurnal revolution of the earth.

3. The third, and most remarkable motion of the sea is the tide, which is a regular swell of the ocean once in 12 hours, owing, as Newton has demonstrated, to the attraction of the moon. To comprehend the laws by which it is governed, will require our

utmost attention, we shall, therefore, first register the principal phænomena of tides, and then lay down a number of positions respecting the causes by which they are produced.

1. It is observed, that on the shores of the ocean, and in bays, creeks, and harbours, which communicate freely with the ocean, the waters rise above the mean height twice a day, and as often sink below it, forming what is called a flood and an ebb, a high and a low water. The whole interval between high and low water is called a tide; the water is said to flow and to ebb, and the rising is called the flood tide, and the falling the ebb tide.

2. It is observed that this rise and fall of the waters is variable in quantity. At Plymouth, for instance, it is sometimes 21 feet between the greatest and least depth of the water in one day, and sometimes only 12 feet. These different heights of tides are observed to succeed each other in a regular series, diminishing from the greatest to the least, and then increasing from the least to the greatest. The greatest is called a spring tide, and the least is called a neap tide.

3. This series is completed in about 15 days. More careful observation shows that two series are completed in the exact time of a lunation. For the spring tide in any place is observed to happen precisely at a certain interval of time (generally two and three days) after new and full moon, and the neap tide a certain interval after the half moon.

4. It is observed that high water happens at new and full moon, when the moon has a certain determined position, with respect to the meridian of the place of observation, preceding or following the moon's southing a certain interval of time, which is constant with respect to that place, but very different in different places.

5. The time of high water in any place appears to be regulated by the moon; for the interval between the time of high water, and the moon's southing, never changes above three quarters of an hour, whereas the interval between the time of high water and noon changes six hours in the course of a fortnight.

6. The interval between two succeeding high waters is variable. It is least of all between new and full moon, and greatest when the moon is in her quadratures. As two high waters happen every day, we may call the double of their interval tide day, as we call the diurnal revolution of the moon a lunar day. The tide, about new and full moon is about 24 h. 37', about the time of the moon's quadrature it is 25 h. 27'.

7. The tides, in similar circumstances, are greatest when the moon is at her smallest distance from the earth; or in her perigee, and, gradually diminishing, are smallest when she is in her apogee.

8. The same remark is made with respect to the sun's distance, and the greatest tides are observed during the winter months of Europe.

9. The tides in any part of the ocean increase as the moon, by changing her declination, approaches the zenith of that place.

10. The tides that happen while the moon is above the horizon, are greater than the tides of the same day when the moon is below the horizon.

Such are the regular phenomena of the tides. They are important to all commercial nations, and have, therefore, been much attended to. It is of the tides, in all probability, that the Bible speaks, when God it said to set bounds to the sea, and to say, "Thus far shall it go, and no farther." Let us, however, with all deference to the great Governer of the universe, inquire as far as we may into the means he employs for the accomplishment of this end, and for that purpose let us attend to the following observations.

1. The influence of attraction extends not only to every large body in the creation, but to every particle of which such body is composed, operating on each in direct proportion to the magnitude of the attracting bodies, and in an inverse proportion to their distances. Those particles of our globe which are on that side next to any celestial body, must, therefore, be more attracted by any celestial body than the centre of the earth, and the centre of the earth than that side of it which is turned from the celestial body. The effects of this difference of reaction will be more sensibly discovered in water than on land, because its particles less tenaciously adhere together. That part then of the ocean which is turned towards the celestial body, will be more powerfully attracted than the centre of the earth, and therefore drawn upward from it toward the attracting celestial body; that part of the ocean which is turned from the celestial luminary is less attracted by it than the centre of the earth, it is, therefore, left behind, and consequently appears to be raised above it in a direction opposite to that of the attracting body; both these effects having been produced, the water rushes from the other two sides of the globe, in order to raise the ocean on the sides turned towards, and turned from the celestial body, beyond the natural equilibrium which obtains in fluids. This accounts for the first phenomenon.

2. Let us now suppose the attracting body to be distant from the centre of the earth 100 semidiameters of our globe. Its distance from the nearest part of our globe would then be to its distance from the most distant part of the earth as 99 to 101. The difference of the attraction exerted on the nearest surface of the earth from that exerted on the centre of the earth, would be to the whole influence exerted on the nearest surface as one to 99, while the difference of attraction exerted on the further side from that exerted on the centre of the globe, would be to the whole influence exerted on the farther side only as one to 101. This proves that the waters must be more raised on the nearer than on the further side of the globe, and accounts for the tenth phenomenon.

3. Of the celestial bodies, two only have any very considerable influence on our globe, the sun and the moon. The former of these is, in almost every instance, possessed of the greatest influence, but in respect to the tides his power is exceeded by that of the moon. To shew the reason for this, let it be supposed that the distance of the sun be 1000 semidiameters of the earth, and that of the moon 100, the difference then of their influences on the different sides of the earth will be in the following proportion:

Solar influence on the earth's nearest side 999, on the farthest, 1001; difference as 2 to 1000. Lunar influence on the nearer side of the earth 99, on its farthest side 101; difference as 2 to 100. The difference then of the lunar influence on the opposite sides

of the globe is ten times greater than that of the influence of the sun, consequently it is the most powerful agent in the regulation of tides.

These numbers have been assumed only for the sake of argument, and their difference is considerably less than the difference between the distances of the sun and moon.

4. When the daily motion of the moon in her orbit is added to the diurnal rotation of the earth, the length of the tides is ascertained, as that is the time which elapses from her being on the meridian of any place to her return to the same again. This is, of course, affected by the irregularities in the moon's motion, and explains the sixth phenomenon.

5. When the moon is in the zenith of any place, her influence on the tides is more strongly felt than when she is on any other part of the meridian. This is so evident as to need no proof, and affords a solution of the ninth phenomenon.

6. The lunar influence on tides is also increased by her being at her least distance from the earth, for precisely the same reason as has been already assigned why her influence on the ocean exceeds that of the sun. Apply this to the seventh and eight phenomena.

7. When the moon is in conjunction with the sun the tides are highest, because the influences of the two most powerful luminaries are then exerted in the same direction. A nearly similar effect is produced when the sun and moon are in opposition to each other, because in that case they attract the ocean on each side from the centre of the earth.

8. The high water does not take place immediately on the new and full moon, because that the motion of any fluid will continue and increase for a certain time after it has received its impulse.

9. Lastly, the projections of opposite shores will oppose many impediments to the speedy propagation of the motion of the sea produced by the lunar influence, and make the time of high water various at different places.

Combine these observations together, and they will cast some light on the second, fourth, and eighth phenomena of tides.

In the former chapter, we made a few observations on the origin of winds, and the temperature of climates, subjects between which there is a close connection; it was not, however, possible at that stage of the work to carry our researches so far as we might wish, since we had not then considered those inequalities of the earth's surface, by which the differences of wind and temperature, which obtain in the various regions of our globe, are materially affected. We have now a proper place to resume our inquiries, and pursue them with greater advantage. Though there is a considerable difference in every part of the world between the temperature of the atmosphere in summer and in winter; though in the same season the temperature of almost every day, and even every hour, differs from that which precedes and follows it; though the heat varies continually in the most irregular and seemingly capricious manner, still there is a mean temperature in every climate, which the atmosphere has always a tendency to observe, and which it neither exceeds nor comes short of, beyond a certain number of degrees. Mr. Mayer dicovered that this mean temperature diminished in a certain regular proportion

to the latitude; and on this principle Mr. Kirwan constructed a table which shews the mean and temperature of every degree of latitude from the equator to the poles. It applies only to the temperature of the atmosphere of the ocean. It was calculated for that part of the Atlantic ocean which lies between the 80th degree of north latitude, and the 45th of south latitude, and extends westward to within a few leagues of America, and for all that part of the Pacific ocean reaching from latitude 48° north, to latitude 40° south, and from the 20th to the 278th degree of longitude east from London. This part of the ocean Mr. Kirwan calls the standard, the rest being subject to various anomalies. Mr. Kirwan also calculated the mean monthly temperature on the principle that it bears some fixed relation to the altitude of the sun, and partly from this calculation, and partly from the observation of voyagers, he constructed a table, which shews the mean temperature of every part of the standard ocean, during every month in the year.

From this table it appears that January is the coldest month in every latitude, and that July is the warmest month in all latitudes above 48°, and below 61°. In lower latitudes August, and in higher latitudes June is generally warmest. In lower latitudes than 33°, the temperature of the three last mentioned is nearly the same. The difference between the hottest and coldest months increases in proportion to the distance from the equator. Every habitable latitude enjoys a mean heat of about 60°; for at least two months, this heat seems necessary for the production of corn.

Within ten degrees of the pole the temperature differs very little, neither do they differ much within 10° of the equator; the temperature of the different years differ very little near the equator, but they differ more and more as we approach the poles.

The temperature of the earth, at the level of the sea, is the same with that of the standard ocean; this temperature gradually diminishes as we ascend above the level, till, at a certain height, we arrive at the region of perpetual congelation. This region varies in height according to the latitude of the place; it is highest at the equator, and descends gradually nearer the earth as we approach the poles. It varies also with the season, being highest in summer, and lowest in winter. If heat depended on the sun's rays alone, it would disappear in the polar regions during the winter, when the sun ceases to rise, which is by no means the case. The reason of this is, that the sun's rays heat the earth considerably during the summer; this heat it retains, and gives out slowly during winter, and thus moderates the violence of cold; and the summer returns before the earth has time to be cooled down beyond a certain degree. This is also the reason that the coldest weather does not take place at the winter solstice, but some time after, when the temperature of the earth is lowest; and that the greatest heat takes place also some considerable time after the summer solstice, because then the temperature of the earth is highest. For pure air is not heated by the solar rays which pass through it, but acquires slowly the temperature of the earth, with which it is in contact.

Since the atmosphere is heated by contact with the superficies of the earth, its temperature must depend on the capacity of that superficies for receiving and transmitting heat. Now this capacity differs very much in land and water. Land, especially when dry,

receives heat with great readiness, but transmits it through its own substance very slowly. Water, on the contrary, receives heat slowly, on account of its transparency, but what it does receive is very quickly transfused through the whole mass.

The sea atmosphere preserves a more uniform temperature than the land atmosphere. The cause of this is evident. In summer the surface of the sea is constantly cooled by evaporation, and in winter, whenever the surface is cooled, it descends to the bottom by its increased gravity, and its place is supplied by warmer water. This process goes on continually, and the winter is over before the atmosphere has been able to cool the water beyond a certain degree. As the sea is never heated so highly as the land, the mean summer temperature at sea may be considered, all over the world, as lower than on land. During winter, when the power of the sun's rays in a great measure ceases, the sea gives out heat to the air much more readily than the earth, the mean winter temperature, therefore, at sea is higher than on land; and in cold countries the difference is so great, that it more than counterbalances the difference which takes place in summer; so that in high latitudes the temperature in summer ought to be greater at sea than on land. Accordingly, from lat. 70° to 35°, to find the temperature of a place, the standard temperature for the same latitude ought, according to Mr. Kirwan, to be depressed $\frac{1}{2}$ of a degree for every 50 miles distance; for the cold which takes place in winter always increases in proportion to the distance from the standard. At a less distance than 50 miles the temperatures of land and sea are so blended together by sea and land winds, that there is little difference in the annual mean. In lower latitudes than 30°, the rays of the sun, even in winter, retain considerable power; the surface of the earth is never cooled very low, consequently the difference between the annual temperatures of the sea and land becomes less.

As we approach nearer to the equator, the power of the solar rays in winter increases, so that the mean winter temperature of the land atmosphere approaches nearer and nearer to that of the sea, till at last at the equator it equals it. After we pass latitude 30° therefore, the mean annual land temperature gradually exceeds that of the sea, till at the equator it exceeds it a degree for every 50 miles distance.

To these general rules there are, however, certain exceptions, which we shall proceed to mention. That part of the Pacific ocean which lies between north latitude 52° and 66°, is no broader at its northern extremity than 42 miles, and at its southern extremity, than 1300 miles; it is reasonable to suppose, therefore, that its temperature will be considerably influenced by the surrounding land, which consists of ranges of mountains, covered a great part of the year with snow; and there are, besides, a great many high, and, consequently, cold islands scattered through it. For these reasons Mr. Kirwan concludes, that its temperature is, at least, four or five degrees below the standard.

The southern hemisphere, beyond the 40th degree of latitude, is considerably colder than the northern. This arises from the sun's continuing several days longer in the summer than he does in the winter signs.

V

Small seas surrounded by land, at least in temperate and cold climates, are generally warmer in summer, and colder in winter, than the standard ocean, because they are a good deal influenced by the temperature of the land.

The eastern parts of North America are much colder than the opposite coasts of Europe, and fall short of the standard by about 10 or 12 degrees. The causes of the remarkable difference are many. The highest part of North America lies between the 40th and 60th degree of north latitude, and the 100th and 110th of longitude west from London; for there the greatest rivers originate. The very height, therefore, makes this spot colder than it otherwise would be. It is covered with immense forests, and abounds with large swamps and morasses, which render it incapable of receiving any great degree of heat; so that the rigour of winter is much less tempered by the heat of the earth than in the old continent. To the east lie a number of very large lakes; and farther north, Hudson's Bay; about 50 miles from which there is a range of mountains, which prevents it from receiving any heat from that quarter. This bay is bounded on the east by the mountainous country of Labrador, and by a number of islands. Hence the coldness of the north-west winds, and the lowness of the temperature. But as the cultivated parts of North America are now much warmer than formerly, there is reason to believe that the climate will become milder when the country is better cultivated, though, perhaps, it will never equal the temperature of the old continent.

Islands are warmer than continents in the same degree of latitude; and countries lying to the windward of extensive mountains or forests, than those which lay to the lee-ward. Stones or sand have a less capacity for heat than earth has, which is always somewhat moist, they heat or cool, therefore, more rapidly, and to a greater degree. Hence arise the violent heat of Arabia and Africa, and the intense cold of Terra del Fuego. Living vegetables alter their temperature very slowly, but their evaporation is great; and if they be tall and close as in forests, they exclude the sun's rays from the earth, and shelter the winter snow from the wind and the sun. Woody countries are, therefore, much colder than those which are cultivated.

In those parts of the Atlantic and Pacific oceans which lie near the equator, there is a regular wind during the whole year, called the trade wind. On the north side of the equator it blows from north-east, varying frequently a point or two towards the north or east; and on the south side of it, from the south-east; changing sometimes in the same manner towards the south or east.

These are supposed chiefly to originate in three causes.

1. The diurnal motion of the equatorial parts of the earth is considerably more rapid than that at its polar regions; and therefore the atmosphere of the former regions must necessarily be carried round more rapidly than that of the latter. If a quantity of air could be suddenly brought from higher latitudes to the equator, it would not, it is asserted, be at once made partaker of this rapid motion, but the eminences of the earth would strike against it, and it would become an east wind. If this needs explanation, let it be considered that as the earth turns round from west to east, a body not turning

with equal velocity to that of the earth would seem to pass (like the sun) from east to west.

2. The action of the sun rarefies this air, especially the atmosphere of those countries to which he is sometimes vertical, this rarefied air ascends, and its place is supplied by cold air rushing in from the north or south. This takes a westerly direction, because the air is there more rarefied than it is towards the east, and therefore less able to resist its impulse.

3. Since the attraction of the sun and moon produces so remarkable an effect upon the ocean, we cannot but suppose an equally great effect is produced on the atmosphere. It is, therefore, probable, that there are tides of air which follow the diurnal motion of the moon from east to west, and thus contribute to give the trade winds a westerly direction.

The space included between the second and fifth degrees of north latitude is the internal limits of these winds. There the winds cannot be said to blow either from the north or from the south ; calms are frequent and violent storms. This is the parallel of the greatest heat, which is, for reasons before assigned, north of the equator.

In several parts of the Indian ocean the wind blows six months in one direction, and six months its opposite. These half yearly winds are called monsoons. They are variations of the trade winds, and are produced by the rarefaction of the atmosphere of certain countries which are heated in summer above the temperature of the ocean. To the same causes are to be ascribed the land and sea breezes. The earth being heated in the day is above the temperature of the neighbouring ocean, its atmosphere becomes rarefied in proportion, ascends, and has its place filled by cool breezes from the water. As the night approaches, the cooler and denser air from the hills falls down upon the plains, and pressing upon the air of the sea, causes the land breeze.

Thus far we seem to have been supported by pretty evident reasoning ; but what remains on this head is attended with some considerable difficulties, we, therefore, think it safest to present the reader with a few extracts from a respectable publication, without daring to advance any decision of our own.

"The rarefied air which ascends between the second and fifth degrees of north latitude, has been shewn to be the universal cause of the trade winds. As this air ascends it must become gradually colder, and consequently heavier ; it would, therefore, descend again if it were not buoyed up by the constant ascent of new rarefied air. It must, therefore, spread itself to the north and south, and gradually mix in its passage with the lower air ; and the greater part of it probably, does not reach beyond the 30th degree, which is the external limit of the trade wind. Thus there is a constant circulation of the atmosphere in the torrid zone ; it ascends near the equator, diffuses itself towards the north and south, descends gradually as it approaches the 30th degree, and returning again towards the equator, performs the same circuit. It has been the opinion of the greatest part of those who have considered this subject, that the whole of the rarefied air which ascends near the equator advances towards the poles, and de-

scends there. But if this were the case, a constant wind would blow from both poles towards the equator, the trade winds would extend over the whole earth; for otherwise the ascent of air in the torrid zone would very soon cease. A little reflection must convince us it cannot be true that rarefied air differs nothing from the common air except in containing a greater quantity of heat. As it ascends it gradually loses this superfluous heat. What then should hinder it from descending and mixing with the atmosphere below? That there is a constant current of superior air, however, towards the poles, cannot be doubted; but it consits principally of hydrogen gas. We shall immediately attempt to assign the reason why its accumulation at the pole is not always attended with a north wind."

"If the attraction of the moon, and the diurnal motion of the sun have any effect upon the atmosphere; and that they have some effect can hardly be disputed, there must be a real motion of the air westward within the limits of the trade winds. When this body of air reaches America, its further passage westward is stopped by the mountains, which extend from one extremity of that continent to the other. From the momentum of this air, when it strikes against the sides of these mountains, and from its elasticity it must acquire from them a considerable velocity in a direction contrary to the first, and would therefore return eastward again if this were not prevented by the trade winds. It must, therefore, rush forward in that direction where it meets with the least resistance; that is, towards the north and south. As air is nearly a perfectly elastic body, when it strikes against the sides of the American mountains, its velocity will not be perceptibly diminished; though its direction be changed. Continuing, therefore, to move with the velocity of the equator, when it arrives at the temperate zones it will assume the appearance of a north-east, or south-east wind. To this is to be ascribed the frequency of the south-west winds over the Atlantic ocean, and western parts of Europe. Whether these winds are equally frequent in the northern Pacific ocean we have not been able to ascertain, but it is probable that the mountains of Asia produce the same effect as those of America."

Our author then, with great ingenuity and diffidence, advances an opinion that part of the atmosphere is, at the poles, decomposed and converted into water. Having endeavoured to support this hypothesis by several very plausible arguments, and suggested several inquiries which might have tendency to decide the truth after which he is pursuing, he proceeds. "If these conjectures have any foundation in nature, there are two sources of south-west winds; the first has its origin in the trade winds, the second, which he inclines to consider as the most important, in the precipitation of the atmosphere near the poles. When they originate from the first cause, they will blow in countries farther south for some time before they are felt in those which are farther north; but the contrary will take place when they are owing to the second cause."

"There are also two sources of north-east winds; the first is an accumulation of air at the pole, the second, a precipitation of the atmosphere in the torrid zone."

"Currents of air from the poles naturally, as has been observed, assume a north-east direction as they advance southward, because their diurnal motion becomes less than

that of the earth. Various circumstances, however, may change their direction, and cause them to become north, or even north-west winds. The south-west winds themselves may often prove sufficient for this; and violent rains, or great heat, by lessening or rarefying the air in any country, will produce the same effect in countries to the westward when north winds happen to be blowing."

"In North America the north-west winds become gradually more frequent as we advance northwards. The east coast of this continent, where the observations were made from which this conclusion was drawn, is alone cultivated, the rest of the country is covered with wood. Now cultivated countries are well known to be warmer than those which are uncultivated; the earth in the latter is shaded from the sun, and never heated by his rays. The air, therefore, in the interior parts of America must be constantly colder than near the sea-coast. This difference will be hardly perceptible in the southern parts, because there the influence of the sun is very powerful; but it will become gradually greater as we advance northwards, because the influence of the sun diminishes and the continent becomes broader. Hence north-west winds ought to become more frequent upon the east coast as we advance northward; and they will probably cease to blow so often as soon as the whole continent of North America becomes cultivated."

"Thus have we attempted to explain the causes which produce the more general winds which prevail in the torrid and temperate zones. The east and west winds, when they are not partial, and confined to a very small portion of the atmosphere, seem to be nothing else but currents of air brought from the north and south, by the causes already mentioned prevented from proceeding farther by contrary currents. If these currents have come from the north, they will assume the appearance of east winds; because their diurnal motion will be less than that of the more southern latitudes over which they are forced to remain stationary. The southern currents will become west winds for a contrary reason. This will furnish us with a reason for the coolness of east winds compared with west winds."

"Besides these more general winds, there are others which extend only over a small part of the earth. These originate from many different causes. The atmosphere is composed of three different kinds of air, oxygen, azote, and carbonic acid; to which may be added water. Great quantities of those ingredients are continually changing their aerial form, and combining with various substances, or they are separating from other bodies, assuming the form of air, and mixing with the atmosphere. Partial voids, therefore, and partial accumulations, must be continually taking place in different parts of the atmosphere, which will occasion winds varying in direction, violence, and continuance, according to the suddenness and the quantity of air destroyed or produced. Beside these, there are many other ingredients constantly mixing with the atmosphere, and many partial causes of condensation and rarefaction in particular places. To these, and other causes, probably hitherto unknown, are to be ascribed all those winds that blow in any place beside the general ones already explained; and which, as they depend upon causes, hitherto, at least, reckoned contingent, will probably for ever prevent uniformity and regularity in the winds. All these causes, however, may, and pro-

bably will be discovered: the circumstances in which they will take place, and the effects which they will produce, may be known; and whenever this is the case, the winds of any place may, in some measure, be reduced to calculation."

It now only remains to inquire whether the globe we inhabit be created or eternal, whether it was originally a chaos, or has existed from the beginning in a state resembling the present. These questions are of the utmost importance, as they respect the first principles of natural and revealed religion. To decide them it is necessary to review the different theories of the earth which have been generally received, either by believers or unbelievers.

The first who formed this amusement of earth-making into system, was the celebrated Thomas Burnet, a man of polite learning, and rapid imagination. His sacred theory, as he calls it, describing the changes which the earth has undergone, or shall hereafter undergo, is well known for the warmth with which it is imagined, and the weakness with which it is reasoned, for the elegance of its stile, and the meanness of its philosophy. "The earth," says he, "before the deluge, was very differently formed from what it is at present; it was at first a fluid mass, a chaos composed of various substances, differing both in density and figure; those which were most heavy sunk to the centre, and formed in the middle of our globe a hard solid body; those of a lighter nature remained next; and the waters, which are lighter still, swam upon its surface, and covered the earth on every side. The air, and all those fluids which were lighter than water, floated upon this also; and in the same manner encompassed the globe; so that between the surrounding body of waters, and the circumambient air, there was formed a coat of oil, and other unctuous substances, lighter than water. However, as the air was still extremely impure, and must have carried up with it many of those earthy particles with which it once was intimately blended, it soon began to defecate and to depose those particles on the oily substances already mentioned, which soon uniting, the earth and oil formed that crust, which soon became an habitable surface, giving life to vegetation, and dwelling to animals. However, this did not long continue in the same state, for, after a time it began to crack and open in fissures; a circumstance which always succeeds when the sun exhales the moisture from rich or marshy situations."

"The crimes of mankind had for some time been preparing to draw down the wrath of heaven; and they at length induced the Deity to defer repairing those breaches of nature. Thus the chasms of the earth every day became wider, and, at length they penetrated to the great abyss of waters, and the whole earth in a manner fell in. Then ensued a total disorder in the uniform beauty of the first creation, the terrene surface of the globe being broken down: as it sunk the waters gushed out in its place, the deluge became universal; all mankind, except eight persons, were destroyed, and their posterity condemned to toil upon the ruins of desolated nature."

"The higher parts of its broken surface now became the tops of mountains; mountains were the first that appeared; the plains soon after came forward, and, at length the whole globe was delivered from the waters, except the places in the lowest situations; so that the ocean and the seas are still a part of the ancient abyss that have not had a

place to return to. Islands and rocks are fragments of the earth's former crust; kingdoms and continents are larger masses of its broken substance; and all the inequalities that are to be found on the surface of the present earth, are owing to the accidental confusion into which both earth and waters were then thrown."

The next theorist was Woodward, who, in his essay towards a natural history of the earth, which was only designed to precede a greater work, has endeavoured to give a more rational account of its appearances; and was, in fact, much better furnished for such an undertaking than any of his predecessors, being one of the most assiduous naturalists of his time. His little book, therefore, contains many important facts relative to natural history, although his system may be weak and groundless. He begins by asserting that all terrene substances are disposed in beds of various natures, lying horizontally one over the other, somewhat like the coats of an onion; that they are replete with shells, and other productions of the sea; these shells being found in the deepest cavities, and on the tops of the highest mountains.

Having taken it for granted that all the layers of earth are found in the order of their specific gravity, the lightest at the top, and the heaviest next the centre, he consequently asserts, and it will not improbably follow, that all substances of which the earth is composed were once in an actual state of dissolution. This universal dissolution he takes to have happened at the time of the flood. He supposes that at that time a body of water, which was then in the centre of the earth, uniting with that which was found on the surface, so far separated the terrene parts as to mix all together in one fluid mass, the contents of which afterwards sinking, according to their respective gravities, produced the present appearance of the earth. Mr. Whiston supposes the earth to have been originally a comet, and he considers the history of the creation, as given us in scripture, to have its commencement just when it was, by the hand of the Creator, more regularly placed as a planet in our solar system. Before that time he supposes it to have been a globe without beauty or proportion; a world in disorder; subject to all the vicissitudes which comets endure; some of which have been found, at different times, a thousand times hotter than melted iron: at others a thousand times colder than ice. These alternations of heat and cold, continually melting and freezing the surface of the earth, he supposes to have produced, to a certain depth, a chaos entirely resembling that described by the poets, surrounding the solid contents of the earth, which still continued unchanged in the midst, making a great burning globe of more than two thousand leagues in diameter. This surrounding chaos, however, was far from being solid; he resembles it to a dense, though fluid atmosphere, composed of substances mingled, agitated, and shocked against each other, and in this disorder he describes the earth to have been just on the eve of the creation.

But upon its orbits being then changed, when it was more regularly wheeled round the sun, every thing took its proper place; every part of the surrounding fluid then fell into a situation, in proportion as it was light or heavy. The middle, or central part, which always remained unchanged, still continued so, retaining a part of that heat which it received in its primeval approaches towards the sun; which heat he calculates, may

continue for about 6000 years. Next to this fell the heavier parts of the chaotic atmosphere, which served to sustain the lighter; as in descending they could not entirely be separated from many watery parts, with which they were intimately mixed, they drew down a part also with them, and these could not mount again after the surface of the earth was consolidated: they, therefore, surrounded the heavy and central globe. Thus the entire body of the earth is composed internally of this great burning globe; next which is placed a heavy terrene substance that encompasses it, round which also is circumfused a body of water. On this body of water the crust of the earth on which we inhabit is placed, so that according to him, of a number of coats or shells; one within the other, all of different densities. The body of the earth being thus formed, the air, which is the lightest substance of all, surrounded its surface, and the beams of the sun darting through, produced that light which, we are told, first obeyed the Creator's command.

The whole œconomy of the creation being thus adjusted, it only remained to account for the risings and depressions on the surface of the earth, with the other seeming irregularities of its present appearance. The hills and valleys are considered by him as formed by their pressing the internal fluid, which sustains the outward shell of the earth; with greater or less weight those parts of the earth which are heaviest, sink into the subjacent fluid more deeply, and become valleys: those that are lightest rise higher upon the earth's surface, and are called mountains.

Whiston has found the water of the deluge in the tail of a comet, He calculates, with great seeming precision, the year, the month, and the day of the week on which this comet (which has paid the earth some visits since, though at a kinder distance) involved our globe in its tail. The tail he supposed to be a vapourous fluid substance, exhaled from the body of the comet, by the extreme heat of the sun, and increasing in proportion as it approached that great luminary. It was in this that our globe was involved at the time of the deluge; and as the earth still acted by its natural attraction, it drew to itself all the watery vapours that were in the comet's tail; and the internal waters being at the same time let loose, in a very short space the tops of the highest mountains were laid under the deep.

After so many theories of the earth, which had been published, applauded, answered, and forgotten, M. Buffon ventured to add one more to the number. He begins his system by making a distinction between the first part of it and the last; the one being founded only on conjecture, the other depending entirely upon actual observation. The latter part of this theory may, therefore, be true, though the former should be found erroneous.

"The planets," says he, "and the earth among the number, might have been formerly (he offers this only as conjecture,) a part of the body of the sun, and adherent to its substance. In this situation, a comet falling in upon that great body might have given it such a shock, and so shaken the whole frame, that some of its particles might have been driven off like streaming sparkles from red hot iron; and each of these streams of

fire, small as they were in comparison of the sun, might have been large enough to have made an earth as great, nay, many times greater than ours. So that in this manner the planets, together with the globe we inhabit, might have been driven off from the sun by an impulsive force; in this manner they would continue to recede from it for ever, were they not drawn back by its superior power of attraction; and thus by the combination of two motions, they are wheeled round in circles."

"Being in this manner detached at a distance from the body of the sun, the planets, from being at first globes of liquid fire, became cool. The earth also, having been impelled obliquely forward, received a rotary motion upon its axis at the very instant of its formation, and its motion being greater at the equator, the parts there acting against the force of gravity, they must have swollen out, and given the earth an oblate or flatted figure."

"As to its internal substance, our globe having once belonged to the sun, it continues to be an uniform mass of melted matter, very probably vitrified in its primeval fusion. But its surface is very differently composed. Having been in the beginning heated to a degree equal to, if not greater, than what comets are found to sustain, like them, it had an atmosphere of vapours floating round its surface. These vapours formed, according to their different densities, the earth, the water, and the air; the heavier parts falling first, and the lighter remaining still suspended."

Thus far our philosopher is, at least, as much a system maker as Whiston or Burnet, and, indeed, he lights his way, with great perseverance and ingenuity, through a thousand objections that naturally arise. Having at last got upon the earth, he supposes himself on firmer ground, and goes forward with greater security. Turning his attention to the present appearance of things upon this globe, he pronounces from the view that the whole was at first under water. This water he supposes to have been the higher part of its former evaporation, which, while the earthy particles sunk downwards by their natural gravity, floated on the surface, and covered it for a considerable space of time.

"The surface of the earth," says he, "must have been in the beginning much less solid than it is at present, and consequently the same causes, which at this day produce very slight changes, must then, upon so complying a substance, have had very considerable effects. We have no reason to doubt but that it was then covered with the waters of the sea; and that those waters were above the tops of the highest mountains, since even in such elevated situations we find shells, and other marine productions, in great abundance. It appears also, that the sea continued for a considerable time on the face of the earth; for as these layers of shells are found so very frequent, at such great depths, and in such prodigious quantities, it seems impossible for such numbers to have been supported all alive at the same time, so that they must have been brought there by successive depositions. These shells also are found in the bodies of the hardest rocks, where they could not have been deposited all at once at the time of the deluge, or at any such instant revolution; since that would be to suppose that all the rocks in which

they are found were at that instant in a state of dissolution, which would be absurd to assert. The sea, therefore, deposited them wherever they are now to be found, and that by slow and successive degrees."

"It will appear also, that the sea covered the whole earth, from the appearance of its layers, which lying regularly one above the other, seem all to resemble the sediment formed at different times by the ocean. Hence, by the irregular force of its waves, and its currents draining its bottom into sand banks, mountains must have been gradually formed within this universal covering of waters; and these successively raising their heads above its surface, must, in time, have formed the highest ridges of mountains upon land, together with continents, islands, and low grounds, all in their turns. This opinion will receive additional weight by considering that in those parts of the earth where the power of the ocean is greatest, the inequalities on the surface of the earth are highest; for the ocean's power is greatest at the equator, where, in fact, the mountains are higher than any other part of the world. The sea, therefore, has produced the principal changes in our earth; rivers, volcanos, earthquakks, storms, and rain, having made our slight alterations, and only such as have affected the globe to a very inconsiderable depth"

A new theory of the earth has been published by Dr. Hutton, which has been applauded, and answered, but has not yet subsisted long enough to be forgotten. He professes to consider the terrestrial system as a fabric erected in wisdom, to obtain a purpose worthy of the power that is apparent in the production of it. A solid body of land could not have answered the purpose of a habitable world, for a soil is necessary for the growth of plants; but a soil is only materials collected from the destruction of the solid land. Therefore the surface of this land, inhabited by man, is made by nature to decay, in dissolving from the hard and compact state in which it is found below the soil; and this soil is necessarily washed away by the continual circulation of the water running from the summits of the mountains. Thus he supposes that the land must at last be entirely destroyed; a misfortune unavoidable from the very constitution of the globe as an habitable world.

It remains, therefore, to be considered, whether there be, in the constitution of this world, a reproductive operation by which a ruined constitution may be again repaired, and a duration and stability procured to the machine considered as capable of sustaining plants and animals.

From a view of the present construction and operations of nature, he concludes not only that all the masses of marble or lime-stone are composed of the calcareous matter of marine bodies, but that all the strata of the earth have had their origin at the bottom of the sea, by the collection of sand and gravel, of shells, of corallines, and crustaceous bodies, and of earths and clays variously mixed, or separated and accumulated. "The general account of our reasoning," says he, "is this, that nine-tenths, perhaps, or ninety-nine hundredth parts of this earth, so far as we see, have been formed by natural operations of the globe in collecting loose materials, and depositing them at the bottom of the sea, consolidating those collections in various degrees, and either elevating these conso-

lidated masses above the level on which they were formed, or lowering the level of the sea."

The agent which he employs in consolidating the strata, in giving them stability, in preparing them for the purpose of the living world, and, lastly, in elevating them from their low situation is matter actuated by extreme heat, and expanded with amazing force. For the proof of this assertion we are to look to the mine, and ask the miner whence the metal has come into his vein. Not from the earth, or air above ; not from the strata which the vein traverses. There is but one place from which these minerals may have come ; and that is the bowels of the earth ; the place of power and expansion ; the place from whence must have proceeded that intense heat by which loose materials have been consolidated into rocks, as well as that enormous force by which regular strata have been broken and displaced. Metals are, therefore, to be considered as the vapours of the mineral regions condensed occasionally in the bowels of the earth.

"We have now been supposing," says Dr. Hutton," that the beginning of our present earth had been laid in the bottom of the ocean at the completion of the former land ; but this was only for the sake of distinctness. The just view is this, that when the former land of this globe had been complete, so as to begin to waste, and be impaired by the encroachment of the sea, the present land began to appear above the surface of the ocean. In this manner we suppose a due proportion of land and water to be always preserved upon the surface of the globe for the purpose of a habitable world, such as we possess."

"We thus allow time and opportunity for the translation of animals and plants to occupy the earth. But if the earth on which we live began to appear on the ocean at the time when the last began to be resolved, it could not be from the materials of the continent immediately preceding this which we examine, that the present earth must have been constructed ; for the bottom of the ocean must have been filled with materials before land could be made to appear above its surface. Let us suppose that the continent which is to succeed our present land is at present beginning to appear above the water in the middle of the Pacific ocean ; it must be evident that the materials of this great body, which is formed, and ready to be brought forth, must have been collected from the destruction of an earth that does not now appear. Consequently, in this true statement of the case, there is necessarily required the destruction of an animal and vegetable earth prior to the former land ; and the materials of that earth which is first in our account, must have been collected at the bottom of the ocean, and begun to be concocted for the production of the present earth, when the land immediately preceding the present had arrived at its full perfection. This, however, alters nothing with regard to the nature of those operations of the globe ; the system is still the same. It only protracts the indefinite space of time in its existence, while it gives us a view of another distinct period of the living world, that is to say, the world we inhabit is composed of the materials, not of that which was the immediate predecessor of the present, but of the earth which, in ascending from the present, we consider as the third, and which had preceded the land that was above the surface of the sea, while our present land was yet beneath the water of the ocean. Here are three distinct successive periods of existence,

and each of them is, in our measurement of time, a thing of indefinite duration. We have now got to the end of our reasoning; we have no data farther to conclude immediately from that which actually is; but we have got enough. If the succession of worlds is established in the system of nature, it is in vain to look for any thing higher in the origin of the earth. The result, therefore, of our present inquiry is, that we find no vestige of a beginning, no prospect of an end."

Each of these theories is liable to important objections. Those of Burnett and Woodward are founded on a position that has been contrary to fact, namely, that the various substances which are found in the earth are arranged in the order of specific gravity. Whiston ought first to have given the theory of his comet, and Buffon that of the sun, before they had proceeded to account for the formation of the globe we inhabit; but though this deficiency should be overlooked, other difficulties would remain. If the whole surface of the earth consisted of chaos of melted minerals, we cannot reasonably think it would have appeared otherwise when cool, than the lavas of burning mountains. Though it should be granted to Buffon, that water can dissolve every terrestrial substance when vitrified by a heat 10.000 times greater than that of our hottest furnaces, as that of the sun must necessarily be; and though the water should let fall its sediment in what quantities and forms we think proper to imagine, it is, in the opinion of able judges, impossible any of it could be thrown two or three miles above the surface of the water, in order to form those mountains which are to be met with in different parts of the world. If the waters retired into vast caverns, according to another of M. Buffon's suppositions, they must have remained for ever in these caverns, from whence they could not have returned to affect those wonderful changes he ascribes to them.

"The theory of Dr. Hutton," says an ingenious writer in the Encyclopedia Britannica, "is of a different nature from the rest; and as it has been supposed directly to militate against revelation, merits a very particular consideration. The expression, however, with which he concludes his dissertation, that we can find no vestige of a beginning, no prospect of an end, might be supposed to relate only to the deficiency of our understanding or mode of inquiry, had he throughout the whole course of his work given a single hint of any materials from which the world was originally formed. In this he differs most essentially from the other theorists whom we have mentioned; for all of them suppose a chaos to have been originally created from whence all the variety of substances we see at present have been formed. But as the Doctor makes no mention of any thing prior to a world nearly similar to what we see just now, we must necessarily conclude that its eternity is a part of his creed. Now that the world has not been eternal, may be proved from what he himself allows."

"Whenever we perceive a succession, we know that there must of necessity have been a beginning: but, according to our author, there has been a succession of worlds by a kind of uncouth generation, similar to what would happen to the human race, if a man was to descend immediately from his grandmother. Proceeding in this way, therefore, we must at last arrive at one great grandmother of earths; and of this one a theory

was no less necessary than of her successors. This theory would have been the more difficult, as his great element, cockle-shells and oysters, would then have been absent; and the materials from whence they were afterwards to be produced must have been sought for."

"Another argument, which evidently shews not only that the world is not eternal, but that some other power besides its own interfered with it originally, may be taken from the existence of animals and vegetables; both of which our author allows to have had a place throughout all his worlds. We see, at present, that animals proceed from animals, and vegetables from vegetables; but the time must have been, when an animal was produced without a parent, and a vegetable without a seed. At this time the world must have been influenced by a power very different from any it possesses at present; for no such power is now to be found in any part of the globe."

"Lastly, the quantity of shells, great as it is, can by no means be reconciled with an eternal succession of worlds, or even with three: for, according to him, we must have three in order to have two habitable ones; viz one lying at the bottom of the sea, another wearing away, another beginning to emerge. Now he infers thence, that only a fourth part of our land is composed of calcareous matter, derived from marine animals. But if one of the worlds has continued for a time indefinite, and consequently another been at the bottom of the sea, for an equal length of time, it must, instead of having a fourth part of its soil composed of calcareous matter at the time of its emergence, have been entirely composed of it, at least if we can credit what is said concerning the nature of these animals. Mr. Whitehurst informs us, that "it is not uncommon to take away a bed of shell-fish several fathoms in thickness; and though the places where they are fished for appear to be entirely exhausted, yet in the ensuing year there shall be as many found in all these places as before." Such an immense increase must, in a time indefinite, especially if repeated for an indefinite number of times, have reduced the whole terraqueous globe to an heap of cockle-shells, or other substances of that kind."

Our author is equally unfortunate in the very first step of his argument, where he says that the soil is only the materials collected from the destruction of the solid land. He owns that all his earths produced vegetables; but these must have had a soil whereon to grow before the first world had time to be destroyed. We are, therefore, here in the same dilemma with regard to the soil that we were before with regard to the vegetables; and as we are obliged to own the interference of a Divine power to produce the first vegetable, so must we also have recourse to the same power for the production of the soil on which it grew. All these considerations ought to have led the Doctor to a conclusion very different to that which he has drawn, and have shewed him, that the beginning of the world was occasioned by a power which cannot possibly be investigated, because it lies without the bounds of nature itself, and far beyond the reach of our faculties.

Among the opponents of Dr. Hutton, none have a juster claim to our attentions than Mr. Kirwan, whose remarks are the result of the most diligent inquiry, and afford un-

doubted evidence of extraordinary abilities. With some of his observations on the creation, the deluge, and the subsequent convulsions, which have happened to the globe, we shall conclude the present chapter.

He begins by asserting that the superficies of our globe, at least to a certain depth, must have originally been in a soft or liquid state. This he infers from the shape it at present exhibits, which is that of a spheriod, compressed at the poles. This chaotic fluid being in a liquid state, must have been heated at least to 33°, and possibly much higher. It also contained the eight generic earths, all the metallic and semi-metallic substances now known, the various simple saline substances, and the whole tribe of inflammables, solid and liquid, which are of a simple nature, variously distributed, form on the whole a more complex menstruum than any that has since existed, and, consequently, with properties very different from any with which we have been since acquainted. Hence elementary fire, on the principle of heat, must have been coeval with the creation of matter, and the general properties of gravitation; and electric attraction may be supposed of equal date. In a fluid constituted like the chaotic, it is evident, from the laws of electric attraction, that the various solids diffused through it must soon have coalesced in various proportions, according to the laws of this attraction, and the proximity of the ingredients; and crystallized into different groups which descended to, and were deposited on the solid kernel of the globe.

By the crystallization of such immense quantities of strong masses as took place at this period, an inconceivably great degree of heat must have been generated; the immediate effect of which must have been an enormous and universal evaporation, sweeping over the surface of the heated fluid, according to the inequalities of its diffusion, and of the causes that produced it in various tracts. Flame thus burst out of the deep, and many volcanic eruptions took place, chiefly in the southern hemisphere, which were attended with important consequences; the first of which must be the diffusion of a considerable heat through the whole mass of the chaotic fluid, by which means the oxygen and mephitic air dispersed through it, must have been extricated, and thus gradually formed the atmosphere. This was followed by the production of fixed air, and the precipitation and crystallization of the calcareous earths and other earths which were sometimes mixed with it. The immense masses concreted and deposited on the interior kernel of the earth formed the primitive mountains, while in the wide intervals of distant mountains, after the first crystallized masses had been deposited, the solid particles of the chaotic fluid, but too distant from each other's sphere of attraction to concrete into crystals, were gradually and uniformly deposited, and thus formed plains.

The next important event necessary to fit the globe for the reception of land animals was the diminution and the recess of the chaotic fluid, in whose bosoms the mountains were formed, and the consequent disclosure of the dry land. This was the consequence of the preceding volcanos; by these the bed of the ocean was scooped, most probably, in the southern hemisphere. But no transposition of the solids deposited from the chaotic fluid could lower into level, unless the inferior kernel of the globe could receive it within its hollow and empty caverns; this admittance it gained through the numerous

rifts occasioned by the antecedent fires; at first rapidly, but afterwards more slowly, in proportion as the perpendicular height of the fluid was diminished, and thus the emerged continent, consisting of mountains and plains, was gradually laid bare and dried, and by drying consolidated.

The tracts at first uncovered were those whose height over the present seas amounts to 8000 or 9000 feet, comprehending the more elevated parts of Siberia, Tartary, Thibet, and China.

The level of the antient ocean being lowered to the height of 8,500 or 9,000 feet, then, and not before, it began to be peopled with fish. This is inferred from the fact that fossil shells are never found embodied in any mountain at a greater height than that which has now been mentioned.

After this elevated tract of the globe had been uncovered, there is no reason to suppose it long remained divested of vegetables, or unpeopled by animals, being in every respect fitted to receive them. The severe degree of cold which at present distresses these countries during the winter months, is solely owing to their distances from and elevation over the natural seas, circumstances that did not exist at that period. The greater part of the particles of solid matter contained in the chaotic fluid being deposed before the creation of fish, the various materials of secondary mountains must have been furnished either by the destruction of such of the primary as existed in the sea, but either from want of solidity, or the smallness of their mass, were too feeble to resist its impetuosity when urged by storms, and being by continued friction, reduced to atoms, were diffused through, or hurried along by the agitation of the waters, or crumbled to pieces by earthquakes, and curiously dispersed through the ocean; or these materials were ejected in immense heated masses, by sub-marine volcanos into the bosom of the waves, to be by them farther decomposed.

The various solids thus diffused at different periods of time through the vast body of the ocean, must have been gradually precipitated and deposited on such solid masses as resisted the progressive motion impressed upon the precipitating masses by that tumultuous element; here they applied to and rested in the low lateral surfaces of many of the most considerable primary mountains as were before destroyed, entombing the shell-fish that adhered to, or rested upon these fragments, and arresting, by their initial softness, the various sunk woods, and such other vegetables or animal substances as chanced to be mixed with these precipitating masses, or were subsequently borne upon them. Trees naturally assumed the situation that least resisted the currents that conveyed them, and hence the uniformity that has been observed very frequently in their position. These depositions, when during their descent they obtained a certain degree of density, must have proved fatal to the various species of fish which were involved in them, and hence the origin of the more solid piscine remains at present found in them; the softer parts being destroyed by putrefaction in this manner, but after long intervals of time the succeeding strata appear to have been formed, but they did not obtain their present solidity until after the retreat of the sea, and through the operation of various causes.

Mr. Kirwan then proceeds to examine the Mosaic account of the creation, which he

paraphrases at some length. We cannot give his remarks entire, but will exhibit them in such a condensed form that we hope the general import of them may be well understood. "In the beginning, God created the heaven and the earth, that is to say, the first event in the history of this globe was its creation, and that of all the planets then known. And the earth was without form and void, that is to say, that the earth was partly in a chaotic state, and partly full of empty cavities. And darkness was on the face of the deep, consequently light did not at first exist. The deep, or abyss, properly denotes an immense depth of water, but here it signifies, as Nudi and Estius observe, the mixed or chaotic mass of earth and water. David, whose knowledge was derived from Moses, and who probably possessed a less abridged copy of Genesis than we do, expressly tells us that the earth was covered with water: the abyss, like a garment, was its covering. Hence we see that the water was from the beginning in a liquid state, and not in that of ice, as I have mentioned, and consequently elementary fire, or the principle of heat, existed from the beginning. And the spirit of God (or rather a spirit of God) moved on the face of the waters; here spirit denotes an invisible elastic fluid, viz. the great evaporation that took place soon after the creation, as soon as the solids began to crystallize, as I have shewn. Of God, is a well-known Hebrew idiom, denoting great; moved, or rather hovered over the waters. David here mentions a fact which he undoubtedly took from Moses, though omitted in our present copies of Genesis, and this part is essential to our theory, namely, that the waters stood above the mountains. Therefore the mountains were formed in the bosom of the waters, as I have stated. Nay, he uses an expression that most probably hath hitherto been ill understood, that God fixed the earth on its basis, from which it shall not be moved for ever. This appears to me to denote the deposition of the solid kernel of the globe, from whence they should never be removed, nor indeed have they ever since."

"The production of light stands next in the order of events recorded by Moses, as it does in our theory, and most probably denotes the flames of volcanic eruptions; the Hebrew certainly bears this signification. The period of its existence Moses called day, evidently from its resemblance to true days, which could have existed only at a subsequent period, namely, after the sun had gained its luminous powers."

"And God said let there be a firmament in the midst of the waters, and let it divide the water from the waters. Here Moses indicates the production of the atmosphere, the word which in our translation is rendered firmament, most properly signifies expanse, or an expanded or dilated substance; than which a more proper name could not sure be chosen for the atmosphere. And God said, let the waters under the heavens be [illegible]hered together in one place, and let the dry land appear, and it was so. This is the fifth event which Moses places in the same order of succession that mere philosophical considerations assign to it. The word *appear* is remarkable, as it seems to denote that the disclosure of the earth was successive, and had not from the beginning fully and completely taken place."

"The event immediately subsequent I omit as not relating to geology, and shall only mention the creation of fish, a fact of great importance in the theory of the earth; this

Moses, as well as philosophy, tells us happened after the separation of the waters from the dry land and primitive mountains. He also relates that the creation of land animals was subsequent to that of fish; a fact which geological observations also indicate, for the remains are always found near the surface of the earth, whereas those of fish are found at the greatest depths. This order of succession* is not only allowed by Buffon, but made one of the principal pillars of his system."

Here then we have seven or eight geological facts, related by Moses on the one part, and on the other, deduced solely from the most exact and best verified geological observations, and yet agreeing perfectly with each other, not only in substance, but in the order of their succession. On whichever of these we bestow our confidence, its agreement with the other demonstrates the truth of that other. But if we bestow our confidence on neither, then the agreement must be accounted for. If we attempt this, we shall find the improbability that both accounts are false; consequently one must be true, and, then, so must also the other.

That such an event as the universal deluge has actually taken place, Mr. Kirwan attempts to prove by the three following arguments:

1. "It is well known that shells were found in a mountain, in Peru, at the height of 14,220 feet. It is already shewn that no mountains higher than 8,500 feet were formed since the creation of fish, or, in other words, that fish did not exist until the original ocean had subsided to the height of 8,500 feet above its present level. Therefore the shells found at more elevated stations were left there by a subsequent inundation. Now, an inundation that reached such heights could not be partial, but must have extended over the whole globe."

2. "The bones of elephants and of rhinoceri, and even the entire carcase of a rhinoceros have been found in the lower parts of Siberia. As these animals could not live in so cold a country, they must have been brought thither by an inundation from warmer and very distant climates, betwixt which and Siberia, mountains above 9,000 feet high intervene. It may be replied that Siberia, as we have already shewn, was not originally as cold as it is at present; which is true, for probably its original heat was the same as that of many islands in the same latitudes at this day, but still it was too cold for elephants and rhinoceri, and, between the climates which they might have then inhabited and the places they are now found in, too many mountains to suppose them brought thither by any other means but a general inundation. Besides, Siberia must have attained its present temperature at the time these animals were transported, else they must all have long ago putrified."

3. "Shells, known to belong to shores under climates very distant from each other, are in some places found mixed promiscuously with each other; one sort of them, therefore, must have been transported by an inundation; the promiscuous mixture can be accounted for on no other supposition."

To prove the possibility of the deluge, he has recourse to a calculation of M. de la Place, respecting the great depth of the ocean, which we have noticed in a former part of this chapter.

The possibility and reality of the deluge being thus established, he next endeavours to trace its origin, progress, and still permanent consequences. That it originated in, and proceeded from the great southern ocean below the equator, and thence rushed on the northern hemisphere, he takes to be a natural inference from the following facts:

1. "The southern ocean is the greatest collection of waters on the face of the globe."

2. "In the northern latitudes, beyond 45° and 50°, we find the animal spoils of the southern countries, and the marine exuviæ of the southern seas, but in the southern latitudes we find no remains of animals, vegetables, or shells belonging to the northern seas, but those only that belong to the neighbouring seas."

3. "The traces of a violent shock or impression from the south, are as yet perceptible in many countries."

4. "The very shape of the continents, which are all sharpened towards the south, where washed by the southern ocean, indicate that so forcible an impression was made on them as nothing but the mountains could resist, as the Cape of Good Hope, Cape Comorin, the southern extremity of New Holland, and that of Patagonia."

This unparalleled revolution, Moses informs us, was introduced by a continual rain for forty days. By this the surface of the earth must have been loosened to a considerable depth; its effects may even have been in many instances destructive; this, in August 1740, several eminences were swept away, nay, the whole mountain of Lidsheare, in the province of Wermeland, in Sweden, was rent asunder by a heavy fall of rain for only one night. This loosening and opening of the earth was, in many places where the marine inundation stagnated, an useful operation to the soil subsequently to be formed, as by these means shells, and other marine exuviæ, were introduced into it, and which rendered it more fertile. By this rain also, the salt water was diluted, and its pernicious effects, both to salt and fresh water fish, in great measure prevented. The destruction of animals served the same purposes, and might, in many instances, be necessary to fertilize a soil produced by the decomposition of primary mountains; from the animals thus destroyed, the phosphoric acid found in many ores may have originated.

But the completion of this catastrophe was undoubtedly effected, as Moses also states, by the invasion of the waters of the great abyss, most probably, that immense tract of ocean stretching from the Philippine islands, or rather from the Indian continent on the one side, to Terra Firma on the other, and thence to the southern pole; and again, from Buenos Ayres to New Holland, and thence to the pole.

Beside the desolation which was immediately occasioned by the deluge, Mr Kirwan thinks there were certain subsequent catastrophes of which it was the cause, particularly the total separation of Asia from America, the coarctation of the Baltic, the separation of the Caspian from the Black sea, and the junction of this with the Mediterranean, and of the Mediterranean with the ocean; and, lastly, the separation of Ireland from Britain, and of Britain from the continent. Of each of these we shall treat more largely

in the succeeding book. Whether Kirwan has not, in some instances, allowed his imagination too extensive a range, and advanced conjectures instead of recording facts, we feel ourselves incompetent to decide; but when the arguments are weighed by which he supports his positions, he will appear to be much superior to all former geologists, and have a just claim to the most diligent attention.

CHAPTER V.

MINERALOGY.——*Progress of mineralogy*——*Earths*——*Salts*——*Inflammables*——*And metals.*

WHEN we consider for how long a period mankind have attached a very considerable value to certain of the fossile productions of the earth, we naturally suppose that their progression in mineralogical knowledge has certainly arrived very nearly at perfection. The fact has, however, been quite the reverse. In the earliest times of which we have any account in history, mankind seem to have been of the same turn of thinking as the less enlightened nations of our own age. Satisfied with such information as casual experience threw in their way, they regarded the occupation of consulting nature by experiment as a childish, trifling, and useless amusement, and neglected forming any theory whatsoever concerning its operations; but in succeeding times, the generalizing spirit of Aristotelic metaphysics extending itself to natural philosophy, soon suggested the notion of one common matter being the substratum of all vegetable, animal, and mineral substances, discriminated only by particular forms, which in the two former were held to be substantial, and in the latter purely accidental. From this, that ungrounded opinion of the transmutation of metals into each other naturally arose; and to this notion, and some others equally false, the progress of mineralogy, and every branch of chemistry is undoubtedly owing. To accomplish their favourite purpose, experiments were multiplied without end, and by means of these the arts of dying, pottery, glass-making, and metallurgy, were insensibly improved. The two last named arts necessarily required some knowledge of the chemical properties of stones and earths. Accordingly we find that all those that were useful in the former were called vitrifiable; those that were capable of burning to lime, calcareous; and those on which fire could produce neither effect, apyrous. For a long time these three divisions were thought to comprehend all species of earths and stones. The same narrow spirit of referring every thing to what was already known, induced mineralogists to class all metallic substances under some of the species anticntly known, denominating all those which discovered any singular properties, wild, rapacious, and arsenical compounds. However, at last happily for science, a few distinguished characters appeared, who, rejecting all hypothetical delusions, determined not only to submit to no other guide but actual experiment, but also to follow it wherever it led them. Of this truly philosophic band, Mr. Margraaf of Berlin led the van, followed by a few others, particularly in Sweden. Discoveries now multiplied apace in the hands of a Brandt, Swab, Cronsted, Gahn, and particularly Mr. Scheele, until at last Mr. Bergman of Upsal, by the solidity of his judgment, the ingenuity and accuracy of his methods, and the multiplicity of experiments, brought mineralogy almost to that degree of perfection at which we at present behold it.

Minerals, strictly speaking, denote only such substances as are found in mines, such as metals, semi-metals, sulphur, and salt; but in a more extensive sense they denote all fossils that do not belong either to the vegetable or animal kingdoms, and consequently stones and earths; all of which are comprehended under the denomination of the mineral kingdom. The mineral kingdom is, therefore, usually divided into four parts or classes, viz. 1. Earth, and stones; 2. Salts; 3. Inflammable substances; 4. Mineral substances. By earths are commonly understood tasteless, inodorous, dry, brittle, uninflammable substances, whose specific gravity, compared with that of water, is not more than five to one, which have not the metallic splendour, are scarcely soluble in water, and give no tinge to borax when melted with it. Stones differ from earths only in hardness, and its consequences, and therefore are included under the same generical name. Any earthy substance, whose integral particles naturally cohere with sufficient force to resist the power of gravity,—while one part of them only is supported, and cannot be separated by mere scraping with the nail, is called a stone; when they may be separated by the nail, but not by an inferior force, they may be called indurated earths, but this being the limit, substances that thus cohere are also frequently denominated from either extreme, being sometimes called earths, and sometimes stones. Simple earths are those which possess permanent distinct characters, are incapable of being further analyzed, or changed one into another by any means hitherto known. All stones and earths consist of these either singly or mixed, or chemically united with each other in various proportions together with saline, inflammable, and metallic substances; for in the earth they are seldom found pure.

Of these simple earths eight are now discovered, the calcareous, or earth of lime, the argillaceous, or earth of clay, the siliceous, or earth of flint, the barytes, or ponderous earth, the magnesian, or muriatic earth, the strontian, the jargonic and adamantine earths.

Beside these, certain have been discovered, or supposed to be discoveries, but as we wish to admit into this brief abstract of mineralogy but those whose existence have been clearly ascertained, we shall only record their discovery in another part of this work. The calcareous, ponderous, magnesian ,and argillaceous earths being combinable with all acids, may be called absorbent earths, in contradistinction to the siliceous, which unites only to the sparry acid. Again, one of the general characters of argillaceous earth is the extreme subtility and fineness of its integrant parts, which render it smooth to the touch, and slowly separable from water when diffused through it, also a certain viscidity and ductility which proceed from its power of retaining water, and of these properties magnesia partakes also, though in a less degree. Siliceous earths, on the contrary, are characterised by roughness, hardness, sharpness to the touch, and a total want of flexibility and adherence to each other when minutely divided, and a ready separation from water; of these properties calcareous, ponderous earths participate, though in a less degree.

Calcareous earth, when perfectly pure, constitutes lime, its specific gravity is nearly three times that of water, it has a hot burning taste, acts powerfully on animal sub-

stances, and when in lumps, heats with a moderate quantity of water. In the temperature of 60° it requires six hundred and eighty times its weight of water to dissolve it; its taste is then pungent, urinous, yet sweetish. It is infusible by itself in a heat that would melt iron, but if mixed with argillaceous or siliceous earths, it will melt in a more moderate heat.

"Calcareous earth," says Dr. Gregory, "is sometimes found in the form of powder, but more frequently in that of a concrete substance called chalk, which differs with respect to the fineness of its particles, and firmness of texture."

1. "Chalk consists of calcareous earth or lime, united with carbonic acid, and an union of the same principles also constitutes limestone and marble. These substances only differ from common chalk in their degree of purity, or in the manner of their aggregation, admitting of more or less polish. The different coloured veins in marble are produced by the admixture of other substances (most commonly iron,) unequally distributed through the mass."

2. "Strata of marle also contain calcareous earth, more or less blended with a considerable proportion of clay and sand."

3. "Calcareous earth is often found projecting into the interstices and crevices of rocks in a crystalized state, and is then called calcareous spar. It is more or less transparent, and shivers into flat fragments of a rhomboidal figure. Of these calcareous spars there are many varieties."

4. "Calcareous earth appears in the form of animal and vegetable substances, petrified into stone by being exposed to petrifying waters."

5. "The shells of crustaceous animals, from the coarsest to the pearl which lines the shell of the oyster, are all made up of this calcareous earth. United with a small quantity of animal gluten, it gives origin to the shells of all crustaceous animals, to egg-shells, and to those marine bodies, which, from their hardness and vegetable appearance, are called stony plants, such as all the species of coral, &c."

6. "If vitriolic acid is poured on chalk, the carbonic acid is expelled, while the vitriolic unites with the calcareous earth, and constitutes gypsum, or plaister of Paris. This exists in considerable quantities in nature, and is divided into several species. To some of these are referred alabaster, Muscovy glass, and selenite."

7. "Calcareous earth is also found saturated with muriatic acid in sea-water, and in salt-pits."

8. "Calcareous earth, united with the fluoric acid, forms the fusible spar or fluor, which is commonly known by the name of Derbyshire spar."

9. "Calcareous earth is found saturated with a particular acid, perhaps of the metallic kind, it forms the Tungstein of the Swedes."

10. "Calcareous earth is also found united with three of the metals, iron, copper, and lead; and forms by such union mountain blue, Armenian stone, turquoise, malachites, stablstein, and several other varieties."

Mr. Whitehurst explains, in the following manner, the formation of sparry and stalactitical productions. "When water, impregnated with the sparry acid, proceeds

slowly through different strata of earths and minerals, it becomes charged with a variety of these substances in solution; and as it exudes gradually on the surface of caverns and fissures, the aqueous particles evaporate, and the sparry matter crystalizes in various forms, including in its own substance the heterogeneous matters with which it is charged. If the quantity of water thus impregnated, which exudes through the pores of the earth or stone, is not more than will easily evaporate in the ordinary heat of the atmosphere, a sparry crust is formed. If the quantity of water exuded exceeds the quantity evaporated, stalactites are produced in one instance, and tubes in another. If a drop of water hangs from the roof, almost dropping, the aqueous particles evaporate from the surface sooner than from its interior parts. A crystalization, therefore, takes place on the surface, while the centre remains fluid: the water thus detained is continually increasing, and the tube gradually extends downwards. By this process, tubes are frequently formed of two feet in length, and one-tenth of an inch in diameter. The appearance of caverns, ornamented with these splendid productions, exceeds that of the most laboured works of art: transparent columns, adorned with the most beautiful and vivid colours, disposed sometimes in the form of a honey-comb, sometimes in a more irregular arrangement; mirrors, reflecting the images of objects, tinged with a light shade of the most delicate colours, ravish the eye of the beholder. The pillars appear of various forms and sizes; sometimes arranged like a regular colonnade, and sometimes disposed with all the delightful irregularity of nature. The stalactites hang like icicles from the lofty roofs of these stupendous caverns, and are reflected back by the polished and glittering floors."

The many instances in which marine remains have been found in marl, marble, limestone, and others of this genus, have inclined some geologists, as Buffon, and, of late, Dr. Hutton, to exclude calcareous earth from the number of the primevals, asserting the masses of it we at present behold to proceed from shell-fish. "But, in addition," says Mr. Kirwan, "to the unfounded supposition that shell-fish, or any animals, possess the power of producing any simple earth, these philosophers should have considered, that before the existence of any fish the stony masses that inclose the bason of the ocean must have existed, and among these there is none in which calcareous earth is not found."

Argillaceous earth does not exceed the specific gravity of water in a greater proportion than that of two to one. It is exceedingly diffusible, but is not, without great difficulty, dissolved in water. The strongest will not render it caustic, nor melt it, unless it be mixed with calcareous earth. It is one of those substances which abound most in nature. There are immense strata of clays, and they make a part of every rich soil. The idea commonly entertained of clay, is that of a natural substance, the purest kinds of which are firm, and have a sort of fatness or unctuosity, and which by being rubbed by the finger, receive a polish. When dry they imbibe moisture, so that when applied to the tongue, it adheres to them. From their attraction for water, they are always found moist in a natural state. If more water be added, they form a ductile paste, which, when thoroughly burnt and dried, becomes hard, stony, and impenetrable to wa-

ter. On the regular contraction which clay undergoes from the application of different degrees of heat, depends the construction of a thermometer for measuring intense degrees of heat, invented by Mr. Wedgwood. Clay united with the vitriolic acid, forms that well known and useful substance alum.

The argillaceous fossils are referred to the following heads:

1. Argilla aerata, lac lunae, i. e. milk of the moon. This fanciful name was heretofore thought to denote a very fine species of calcareous earth, till Mr. Screber has lately shewn that the earth to which this name is given, is a very uncommon species of argilla. It is generally found in small cakes of the hardness of chalk, and, like that, it marks white. When examined with a microscope, it is found to consist of small transparent crystals.

2. Porcelain clay, argilla apyra, the kaolin of the Chinese. This is very refractory, and is with great difficulty brought into perfect fusion. After it has been submitted to the action of heat, it is of a solid texture, and is so hard as to strike fire with steel. Common pipe-clay belongs to this division, and differs from porcelain clay only in being less pure, which prevents its burning to a good colour.

3. Lithomarga, or stone marrow, when dry, feels as slippery as soap, but is not wholly diffusible in water. When mixed with water, it falls in pieces so as to assume the appearance of curds. In the fire it melts into a frothy slag. In the mass it breaks into irregular scaly pieces. This is the fuller's earth used in the dressing of cloths. To this species also belongs the terra lemnia; this is of a brownish colour and shining texture, and falls to pieces in water with a crackling noise. To this species belongs the Turkish earth, so called from its receiving the impression of the Grand Seignior's seal.

4. Bole is a fine and dense clay of various colours, containing a large quantity of iron. It is not easily softened in water when indurated, as the porcelain and common clays but either falls to pieces in the form of fine grains, or repels the water, and cannot be made ductile. In the fire it grows black, and is then attracted by the loadstone. The soft boles are of various colours, as red, yellow, green, grey, and blueish grey. The red kind is that used in medicine, under the name of Armenian bole; an indurated kind of which affords the material for red pencils. An indurated bole is frequently found in coal-pits, between the seams of coal, and is called coal-slate. It is met with frequently in pieces like nuts, of various sizes; which, when broken, exhibit impressions of plants. Another species of bole is by the Swedes called hornblende.

5. Zeolite, is in general of a crystalline form, composed of imperfect pyramids, turned towards a common centre. The lapis lazuli belongs to the zeolites.

6. Tripoli, is an earth consisting of very fine particles, and is known by its quality of rubbing or wearing hard bodies, which gives them a polish. Another variety of this is called rotten-stone.

7. Common or brick clay is found of various colours, as red, pale red, grey, and blue. It acquires a red colour, more or less deep, in the fire, and melts pretty easily into a greenish glass. It consists of a mixture of pure clay, siliceous and martial (or iron) earths, containing also a small quantity of vitriolic acid.

8. Argillaceous fossil stones, to which the denomination of schisti properly belongs. The most remarkable stones comprehended under this division, are the bluish purple schistus, or common roof slate; the pyritaceous schistus; the bituminous schistus; the argillaceous grit, which is also called sand-stone, and free-stone; the killas, the flag-stone, and the toad-stone.—Siliceous earths are chiefly distinguished by their hardness, by which they strike fire with steel, and their property of forming good glass with alkali. They may be divided into, 1. Gems, or precious stones; 2. Quartz; 3. Flints; 4. Jaspers; 5. Feldt-spars.

I. GEMS. 1. The diamond is the hardest of all bodies. Its specific gravity is to that of water nearly as seven to two, hence it refracts the rays of light very powerfully; but it possesses this power even in a much greater degree than might be supposed from its density, and hence proceeds its singular brilliancy. The diamond, properly so called, is colourless; but it also retains this name when it is slightly tinged either with red or yellow, it is, therefore, not the colour of the stone, but its hardness and lustre, which obtain it the denomination of a diamond.

2. The ruby has been confounded with the diamond, on account of its hardness and lustre, but some late experiments shew that it is essentially different.

3. The sapphire is transparent, and of a blue colour, and is said to be next to the diamond in hardness. They are sometimes of a milky appearance.

4. The topaz is chiefly of different shades of yellow, but is sometimes greenish. When of a sea-green colour it is called aqua-marine; when more green, the beryl; when yellowish green, the chrysolite.

5. Emerald, the chief colour of which is green, is the softest of the precious stones, and when heated, is phosphorescent like the fluors.

6. The jacinth is of a fine reddish yellow colour, and sometimes brown, they are formed in prisms, pointed at both ends.

7. The amethyst is a gem of a violet colour, of great brilliancy, and as hard as the best kinds of rubies and sapphires, from which it only differs in its colour. When it approaches to the purple, or rose colour, it is more esteemed than when it inclines to the blue.

8. The garnet, when transparent, and of a fine colour, is reckoned among the gems; but it varies more than any, both with respect to its form and colour; some being of a deep and dark red, some yellow and purple, and some brown, blackish, and quite opaque.

9. The tourmalin has lately been brought much into notice by its remarkable property of becoming electrical, in consequence of the simple application of heat. The oriental tourmalins are found in the island of Ceylon: are of a dark brown yellow. From Brazil they are, for the most part, green; but there are also some red, blue, and yellow. From Tyrol they are obtained of so dark a green as to appear opaque.

10. The opal is a most beautiful stone, from the changeable appearance of its colours by refraction and reflection. There are two kinds; one of which, the opal of Nonnius, appears olive coloured by reflection, and then appears to be opaque; but when

held against the light, it is found to be transparent, and of a deep red colour. The white opal of a glass-like complexion, throws out green, yellow, purple, and bluish rays; but it is of a reddish, or rather flame-colour, when held against the light.

II. QUARTZ has less transparency and hardness than the precious stones. The fracture of quartzose stone is vitreous, or like glass, and they strike fire with steel. No very remarkable stones belong to this genus. The varieties are fat quartz, which is very glossy; it is either colourless, or is tinged with white, blue, or violet. Dry quartz, transparent, white, or pale green. Sparry quartz, pale yellow, or pale blue. Crystalized quartz is either opaque or transparent: the transparent and dark-brown kind, is called smoky topaz; the yellow, blue, green, and red, false gems; and the colourless, rock crystals; when milky, milk crystals, and pebbles. Quartz is also found combined with iron and copper; with the former it constitutes a black calx, with the latter a red calx.

III. FLINTS are more uniformly solid, and not so much cracked in the mass, as quartz; and are more pellucid than jasper. The several varieties of flints have obtained more distinct names, from the variety of their colours, than from any real difference in their substance; but these are still proper to be retained, as the only names by which jewellers and others are used to distinguish them.

1. Jade, lapis nephriticus. This stone feels unctuous to the touch, but is so hard as to strike fire with steel, and is also semi-pellucid.

2. The cat's eye is a very scarce stone. It is opaque, and reflects green and yellow rays, in a manner somewhat similar to the eye of the animal from which its name is derived. It is found in Siberia.

3. The hydrophanes, or oculus mundi. The character which distinguishes this from all other stones is its property of becoming transparent in consequence of being immersed in water. This happens from its imbibing that fluid, as it becomes again opaque by being dried.

4. Moon-stone, or rainbow-stone, reflects light of pearl and carnation colours, its fracture is foliated, and its colour pale blue, and milky.

5. Chalcedony, or white agate. This stone is usually cut with a convex surface, and receives a good polish. Its degree of hardness is intermediate, between that of the onyx and true agate. It is semi-transparent, and its colour is usually very similar to that of milk diluted with water.

6. The onyx is the hardest of flints, its usual colour is that of the human nails, it is either marked with white lines only, or with black and white together. Heat deprives it of colour, and, if suddenly applied, cracks it.

7. The carnelion derives its name from its resemblance to the colour of flesh. It is either quite red, or of different shades of red, with brown and yellow.

8. The sardonyx is a mixture of the chalcedony and carnelion, sometimes disposed in strata, and sometimes confusedly blended and mixed together. Its colours are, therefore, a mixture of white and red, sometimes in stripes, sometimes irregularly notched.

9. Agate. This name is given to flints that are variegated with different colours pro-

miscuously blended together, and they are esteemed in proportion to the mixture and perfection of their colours.

10. Common flint, or pebble, is in reality of the same nature with agate, but wanting the beautiful and various colours of the substances that bear that name. Chalk and white lime-stone are usually the matrices of flints, in which they are imbedded, in the form of nodules, consisting of nuclei involved in a crust.

11. Chert is less hard and transparent than the common flint. It is not, in general, found in loose and single irregular nodules, but forms veins in rocks. Cherts are found of a flesh colour, white, pale yellow, and greenish, and seem to be of an intermediate nature, between the flints and jaspers. Sand and gravel may be considered as flinty matters, torn away from the rocks in which they originally existed, and afterwards worn and smoothed by the attrition occasioned by the motion of water. Sand and gravel, however, consist of all the variety of stony matters which existed in the masses from which they proceeded, and are therefore found of many different colours and properties.

IV. The name of Jaspers is given to all the opaque siliceous stones, which in their texture resemble dried clay. The principal circumstance, besides their appearance, which distinguishes them from the other siliceous order, is their more easily melting in the fire. They in general contain much iron. They are very hard, and admit a good polish; and they are variegated with different colours. They are seldom ranged in strata, but form considerable masses and veins in rocks. They are also found in small round masses. The principal species of jasper are the following: the white, grey, yellow, red, brown, green, veined, spotted, flowered, and green with red points, or blood-stone. Toys, and more especially cups and saucers, are made of jasper. Many antique sculptures are in stones of this nature.

V. The most common kind of Feldt-spar is formed of rhombic laminæ, and has therefore obtained the name of rhombic quartz. It gives fire with steel, whence it has been called spathum scintillans. It is harder than the schisti, and is fusible. It is found in loose masses, two inches long, or mixed with sand, clay, &c. or bedded in granite. It is used in making china at Dresden. Its colours are white, red, brown, pale yellow, or greenish.

The Labrador-stone is generally classed with the feldt-spars. It admits of a very fine polish, and when in that state, reflects a variety of beautiful colours. The stone itself is of different shades of grey.

VI. Shirl or cockle, of different shades of green; and the various species of whet-stones, are also commonly referred to the siliceous order, though the latter are generally in some measure compound.

Barytes or ponderous earth is a substance, but thinly scattered: it much resembles alum, but its texture is striated, its specific gravity is more than four times greater than that of water. It was discovered in Sweden in 1774, but hath not yet been found pure. It is found in two states, combined either with the carbonic or vitriolic acids.

1. When united with the former acid it resembles alum, but is hard and striated, as

if composed of radiating fibres coming from a centre. It is sometimes of a greenish colour; sometimes jagged, when it is called cristratum, from its resemblance to a cock's comb. These prominences are found accreted to balls of the same substance.

2. Ponderous earth is more frequently united with vitriolic acid. These stones are found of various appearances, pale yellow, blackish, with coarse scales, or with fine sparkling scales. They are either transparent or opaque. The transparent ponderous spar is usually in the form of a six sided very flat prism, ending in a four sided pyramid; but like all other crystals, liable to be varied by the circumstances attending their formation. The opaque specimens, called cawk by the miners, are of a white, grey, or fawn colour; frequently of no regular figure, but often in the peculiar figure of a number of small convex lenses united together. These varieties are all remarkably heavy, in general exceeding four times the weight of water, and by this the presence of barytes may commonly be discovered. These stones composed of vitriolic acid and barytes may be known by their smelling like liver of sulphur when rubbed. From this property they are called lapis hepaticus, and leberstein (liver-stone) by the Germans.

Magnesia is a white, loose, and lighter earth, only known since the beginning of this century; it is generally found combined with other heterogeneous substances, as other simple earths are. The stones usually treated of under this head consist of magnesia united with flint; but the latter usually predominates. Most of them are soapy to the touch, and so soft that they may be cut into various utensils. Of these the following are the most remarkable:

1. Steatites, lapis orilla, or soap rock, is of various colours, but chiefly different shades of green. It does not become ductile in water, and is fused with difficulty.

2. Smertis, or French chalk, is found pretty plentifully in Cornwall. Its colour is either white, yellow, or red and white; some specimens have the appearance of Castile soap.

3. Serpentine stone is of different shades of green. The structure of this stone is fibrous, and it might therefore be confounded with another earthy matter, called asbestos, if its fibres did not adhere so closely together, as to escape observation, when the stone is cut and polished. Of the serpentine stone are many varieties, and it is found spotted or streaked with a great diversity of colours.

4. Micaceous earths, or talks, may be defined earthy or stony bodies, the texture and composition of which consist of their flexible particles, divisible into plates or leaves, having a shining surface. These plates, by being exposed to heat, separate into smaller ones, but their flexibility is much diminished. By a strong heat they curl or crumple, but it is very difficult to reduce them to perfect fusion without addition. The plates of mica, when of the purest kind, are transparent, and there is one variety, the plates of which, from their near resemblance to glass, are called Muscovy glass. Micas, however, are often tinged with a variety of colours, or are more or less opaque. Sometimes they have a lustre resembling that of metallic substances.

5. The asbestos, or amianthus, is a fossil agreeing with talk, in having a regular structure, in being flexible, but differing in being composed of fibres instead of plates. When

long exposed to air, it dissolves into a sort of downy matter, which has some degree of toughness, but the fibres of which cannot be unravelled. Cloth and paper have been made of this substance, which resist the fire. Asbestos, however, though unassailable by common fires, has submitted to the power of strong burning mirrors, and has undergone vitrification. The antients are said to have manufactured cloths of this fossil, in which they wrapt their dead when they burned them, that the ashes might be preserved. Several moderns have succeeded in making this cloth; the chief contrivances which are necessary are to mix the mineral fibres with a large proportion of flax, and to use oil freely; these matters are afterwards consumed by exposing the cloth to a red heat. Although the cloth of asbestos, when soiled, is restored to its whiteness by burning, yet it loses some part of its weight, as has been ascertained by accurate experiments. The varieties of this curious genus of fossils, are mountain leather or cork; mountain flax, to which the name of amianthus is particularly applied; common or unripe asbestos, and mountain wood. These substances all consist nearly of the same component parts, and differ chiefly in colour, solidity, or in the form and direction of their fibres. Some specimens of the amianthus are so light as to float in water.

When the fibres are parallel, it is called mountain leather; when twisted, mountain cork.

About the year 1787, a mineral was brought to Edinburgh, by a dealer in fossils, from the lead mine of Strontian, in Argyleshire, where it is found imbedded in the ore, mixed with several other substances. It is sometimes transparent and colourless, but generally has a tinge of yellow or green. Its specific gravity is more than three times greater than that of water. Its texture is generally fibrous; and sometimes it is found crystallized in slender prismatic columns of various lengths. It consists of carbonic acid, combined with a peculiar earth, to which Dr. Hope gave the name of strontites. It is also called Scottish earth. It is of a whitish colour, and has an acrid pungent taste. When pounded in a mortar, the powder that rises is offensive to the nostrils and lungs. It does not, however, appear to be possesed of any poisonous qualities. When strontites is thrown into water, it attracts it with a hissing noise, much heat is produced, and it falls into powder much more rapidly than lime.

Jargonic earth is found in the jargon, a precious stone, imported from Ceylon. It has a strong resemblance to argillaceous earth. Its colour is white, and its specific gravity four times that of water.

There is a stone found in China, and in the East Indies, near Bombay, which, from its hardness, has been called adamantine spar. It is composed of two parts; argillaceous earth, and one part of a peculiar earth which is called adamanta. It differs from siliceous earth in being fusible when mixed with potash or soda. It is three times heavier than water.

Beside these eight orders of earth, there are several compound stones, which are composed of two, three, or four different kinds of stony matter. Among these are numbered breccias, porphyry, granite, and several varieties of marble. We have here a proper place to treat of volcanic productions, of which the following are most remarkable;

I. LAVA is of very various appearance, according to its composition, and its more or less perfect vitrification. The materials of which lavas consist, are the common substances to be found every where in the earth, namely, stones, metallic ores, clay, sand, &c.; and as there is room for great variety in the combinations of these substances, the melted masses formed by them must, in different circumstances, be very various. Mr. Kirwan divides lavas into three kinds, the cellular, the compact, and the vitreous. All lavas are more or less magnetic, give fire with steel, are of a granular texture, and melt without the addition of other substances. The cellular lavas are such as have undergone only the first and lowest degree of fusion, being just softened and heated sufficiently to expel the fixed air contained in the matter from which they are formed, which seems to be argillaceous slate; hence they abound in small cavities occasioned by the expansion of that air. The specific gravity of some lavas from these cavities is so small, that they float for some time on water. From this circumstance they have sometimes been mistaken for pumice stone; but they differ from it, because their texture is never filamentous. The perfectly vitrified lavas must have been exposed to an immense heat, as they are with great difficulty fused without addition. The beds of lava are deepest and narrowest near the crater, and broader and shallower as they advance, unless some valley intervenes. Pumice stones lie at a still greater distance, "and from these observations," says Mr. Kirwan, "extinguished volcanos may be traced." The quantities of matter thrown out of volcanos at one eruption, are often so great, as to cover a space of country of many miles, and to be many years in cooling.

II. PUMICE STONE seems to be rather a volcanic ejection than a volcanic product. Its colours are grey, white, and reddish brown. It is hard, rough, porous, consists of slender fibres, parallel to each other, is very light, and with difficulty gives fire with steel. It seems to have been originally an asbestos, decomposed by the action of fire.

III. BASALTES is a stone of a dark grey colour, covered with a ferrugineous crust, and generally crystallized in opaque, triangular, or polyangular columns. When it is not of a regular form, and breaks into large, thick, square pieces, it is called trapp.

IV. TERRA PUZZOLANA, or TERRAS, is a volcanic production, of a grey, brown, yellowish, or blackish colour, loose, granular, or dusty and rough, porous and spongy, resembling clay hardened in the fire, and then reduced to a gross powder. Its most distinguishing property is, that when mixed with about one-third of its weight of lime and water, it hardens very suddenly, and forms a cement which is more durable in water than any other.

By the name of salts those mineral bodies are called which can be dissolved in water, and give it a taste, and which have the power, at least when they are mixed with one another, to form new bodies, of a solid and angular shape, when the water in which they are dissolved is diminished to a less quantity than is requisite to keep them in solution. This quality is called crystallization.

Salts are either simple or compound. Simple salts are distinguished into alkalies and acids; and from the union of an acid and an alkali, are produced compound salts, which are also called neutral, because by this combination the characteristic properties both

of the acid and alkali are lost, and a new body is formed, which is extremely inert, in comparison with the two substances of which it is composed. Several of the earths, and some of the metals, are also capable of being united with acids, and the compound forms a salt more or less perfect. They have, therefore, been divided into six following orders: 1, Acid salts; 2. Alkaline mineral salts; 3. Neutral salts; 4. Earthy neutral salts; 5. Metalline neutral salts; 6. Triple neutral salts.

Acids are very active substances, and when concentrated, are highly corrosive. They have so general a tendency to unite with other substances, that they are never obtained pure except by art. They are generally fluid, which seems, however, chiefly to be owing to their strong attraction for water, of which few of them can be entirely deprived, and which they copiously attract from the atmosphere. One of the marks by which the presence of uncombined acids may be ascertained, is their property of changing to a red, the blue colour of infusion of violets, which alkalis change to a green. The acids found in the mineral kingdom, are the carbonic acid or fixed air, the vitriolic, the nitrous, the muriatic, the acid of spar, the acid of borax, the acid of phosphorus, and the the acid of amber. The carbonic acid has already been treated of under the head of gasses. The vitriolic acid takes its name from vitriol or copperas, from which it was formerly extracted by distillation. In the new chemical nomenclature, it is with much more propriety called the acid of sulphur, as it is now found to be a combination of that inflammable substance with oxygen. The nitrous acid is a fluid of considerable weight, but does not admit of so much concentration as the vitriolic. In its most perfect form it is quite transparent and colourless, but in its ordinary state it is of an orange tawny colour, and when exposed to the air it constantly emits orange-coloured fumes, which are noxious. The muriatic acid, in its ordinary state, is a yellowish-coloured fluid, and emits fumes which do not give the air a red tinge like the nitrous acid, but produces an appearance of mist. These fumes are noxious to the lungs, and smell like burning soot. The sparry, or fluor acid, was discovered by Mr. Scheele, and takes its name from the substance from which it is obtained, and which is commonly known in England under the name of Derbyshire spar. This acid, when pure, assumes the form of gas. In this state it is heavier than atmospheric air, extinguishes flame, and destroys animal life; it has a penetrating smell, like that of marine acid, but more powerful; and its causticity is such, that it almost instantly corrodes the skin. If borax is dissolved to saturation in boiling water, and the vitriolic acid added in such quantity as to be perceptibly in excess, a substance will rise to the surface of the water in the form of white scales, which is proved to be a peculiar acid. It unites with ponderous earth, magnesia, lime, and alkalis, and forms with these substances saline compounds. The phosphoric acid abounds in the animal kingdom, and is not unfrequent in the vegetable and mineral. In this last it is found united with lead and iron, as well as with calcareous earth. The acid of amber is obtained from the substance of that name, by the simple application of heat. It possesses the qualities of an acid in a very small degree, and only affects the blue vegetable colour very slightly.

Alkalis are of three kinds. 1. Mineral fixed alkali, soda, or natron, is the salt which

is found recorded in antient history under the name of nitre. It is said to be found in Egypt in tolerably pure crystals,* and also in Persia, where it appears in a form resembling that of hoar frost. Even in Europe it is found in small quantities in mineral springs, and also on the surface of new walls, in the form of a damp and dewy efflorescence. In a compound state it is found in abundance; it makes half the weight of common salt, and is also occasionally found naturally combined with other acids. Alkalis are either mild or caustic; the latter is their most simple state, as when mild they are united with the carbonic acid, with which they form a kind of neutral salt. Though the carbonic acid has less affinity with the alkalis than any other acid, yet it is difficult to separate it entirely: the usual method of accomplishing it is to dissolve the mild alkali in water, to add to this solution some quick lime, and then to filtrate the liquor, and evaporate it in closed vessels; the saline substance left after evaporation, is an alkali almost entirely deprived of carbonic acid.

2. The vegetable fixed alkali, potash, or kali, agrees in several circumstances with the former; it is acid when applied to the tongue; requires as great a degree of heat to melt it; and in a very strong heat flies off totally in vapour. It differs from the fossil alkali in having a much stronger attraction for water.

3. The volatile alkali or ammonia is seldom or never found in a simple state. It is met with in nature only compounded with other bodies, in nitrous ammoniac, or in common sal ammoniac, which is sometimes found in the neighbourhood of volcanos, or coal-mines which have been burnt for a long time. The volatile alkali of commerce is chiefly produced from bones. The neutral salts may be divided into several classes according to the different acids and alkalis that are combined in their formation. The vitriolic salts are glauber salt, and vitriolated tartar.

The former of these neutral salts is composed of the vitriolic acid, combined with the mineral alkali; and the latter of the same acid with the vegetable alkali. They have both a saline bitterness. The solution of glauber salt forms into columnary crystals, which have generally six sides, four principal, and two which seem to be accidental. Vitriolated tartar is distinguished from glauber salt by a less degree of fusibility. The vitriolic acid combined with the volatile alkali is called ammoniacal vitriol, or sulphat of ammonia. When ammoniacal vitriol is very pure it has the form of needles, which are found to be flatted prisms of six sides. The whole figure of the crystallization is however, subject to considerable varieties, as this salt is sometimes in the form of quadrangular prisms, and sometimes obtained in very thin plates.

The nitrous salts are common nitre, cubic nitre, and nitrous ammoniac. The crystals of common nitre are more regular than those of any other salt, (being prisms of six sides) having very little water in their composition, and therefore not liable to spontaneous evaporation. Common salt is a combination of the muriatic acid and the mineral fixed alkali. This is the most useful of all the saline bodies; for though there are some which resist putrefaction as well, yet there is none which is so friendly and agreeable to the human stomach. Earthy neutral salts are combinations of acids and earths, several of which have been mentioned in the description of earths. Metalline neutral salts are

similar combinations of acids and metals. To these are referred vitriol of copper, muriatic copper, martial vitriol, conuted iron, vitriol of zinc, and several others. Triple salts are, as the name implies, combinations of three ingredients. Such is vitriol of copper with iron.

The third class of mineral substances are denominated inflammables, from the change which takes place in their texture when exposed to the action of fire. In ordinary language, no bodies are said to be inflammable but such as burn easily, or which, in other words, are capable of disengaging the matter of heat from vital air in the diluted state in which it exists in the atmosphere. In a more strict sense, however, the property of inflammability belongs to other bodies, though they possess it in a less eminent degree; as to zinc, which, when made extremely hot, burns with a dazzling white light; and to iron, which, when heated to a proper degree, burns in pure oxygenous gas.

The following are the principal substances which are named inflammable, as possessing the property in a remarkable degree:

1. Hydrogen.

2. Hepatic air, concerning both of which we have already treated.

3. Plumbago, or black lead, is frequently confounded with mobybdenum, the appearance of which is nearly the same, though the qualities are very different. Black lead, when pure, is extremely black, but when fresh cut, appears of a bluish white, and shining like lead. It is micaceous, and minutely scaly, easily broken, and of granular and dull appearance when broken. Its mark on paper is much darker than that of mobybdenum, which has a fine silvery appearance; by which means they are easily distinguished from one another. Black lead is too soft to strike fire with steel, it is insoluble in acids; but in a very strong fire, when exposed to the air at the same time, it is entirely volatile, leaving only a little iron and a small quantity of siliceous earth. It may be decomposed by deflagration with nitre; but the common fluxes are not capable of procuring its fusion; its specific gravity is to that of water as 770 to 1000.

4. Mineral tallow is a very peculiar substance. It was found on the coast of Finland, in the year 1736, Its specific gravity is to that of water as 770 to 1000. It burns with a blue flame and a smell of grease, leaving a black viscid matter, which is more difficult to consume. It is found in some rocky parts of Persia, but seems mixed with petroleum. Dr. Herman, of Strasburgh, mentions a spring, in the neighbourhood of that city, which contains a substance of that nature diffused through it, which separates on ebullition, and may then be collected. The origin of this substance is unknown.

5. Ambergris. The structure of this substance is sometimes like bees'-wax, but sometimes it is granulated, and appears opaque, or of a dark grey. Experiments prove that it resembles amber in its nature. When analyzed it is found to consist of phlegm, a volatile acid partly fluid, oil, and a little coaly matter. It is most common in the Indian seas, on the eastern coast of Africa, Madagascar, &c. and is found either floating on the sea, or cast on the sea shore. In this substance animal and vegetable remains are sometimes found, as, for instance, parts of birds, &c.

6. Amber. This substance is dug out of the earth, and found on the sea-coasts

According to the experiments of M. Bourdetin, it consists of an inflammable substance united with the acid of common salt, which seem to have given it its hardness. It is supposed to be of vegetable origin, since it is said to be found together with wood in the earth. Insects, fish, and vegetables, are often found included in it, which testify its having once been liquid. It is more transparent than most of the other bitumens, and is, doubtless, the substance which first gave rise to electrical experiments, on account of the power it possesses of attracting little bits of straw of a coloured transparency: when opaque is found brown, white, or blackish, when transparent colourless or yellow. Amber and ambergris much resemble each other, and are considered, among learned men, as belonging to the vegetable kingdom.

7. Rock oil. This name is given to several substances which are all of the same nature, but differ in consistence. Naphta is an oily fluid, which, in its greatest degree of purity, is nearly colourless, is extremely volatile and subtile, and so light as to float even on spirits of wine. It has a strong oppressive smell, and evaporates spontaneously. Like other oils, it burns with smoke. It is said to be gathered at the surface of certain wells in Persia, and is rarely found in Europe. Petroleum, which is of a thicker consistence, and more weighty than naphta, is much more common. It is of a yellow or brown colour, and is found in Switzerland, Sicily, Italy, and France. It issues from the crevices of rocks, or is found floating on the surface of springs. The different kinds of petrolea, on distillation, yield naphta, while a coaly residuum remains in the retort. Barbadoes tar is of a thicker consistence than petroleum, and is also called mineral pitch; it was formerly found near Babylon, and constituted, according to Vitruvius, when mixed with lime, the cement which was used in building the walls of that city. It is at present found in several parts of Europe and in America, where it drops or distils, gradually from rocks. Asphaltum is a substance much resembling Barbadoes tar: it is also called Jews' pitch, and is thrown up in a liquid form from the bottom of the lake where Sodom and Gomorrah antiently stood. From the production of this substance this was called the Lake Asphaltes, from a Greek word denoting bitumen. The bitumen floating on the surface of the water is hardened by the heat of the sun, and is in that state collected by the Arabs on the shore, where it is thrown. The eastern asphaltum is seldom brought to Europe, but is used by the inhabitants as pitch.

8. Jet is a very compact bitumen, harder than asphaltum, always black, and susceptible of a good polish. It is so light as to swim on water, becomes electrical when rubbed, and is called black amber. When burned it emits a bituminous smell. Jet seems nearly allied to coal, and particularly to that species which is called canal coal. From which, however, it is easily distinguished by its lightness, its electrical properties, and its being composed of fibres parallel to each other, like those of wood. It seems, in fact, to be wood, which has been long buried in the earth, and penetrated by mineral steam, so as to assume the appearance and solidity of coal.

9. Coal is a substance of which there are many varieties, the causes of which have not been ascertained, as all the kinds afford very nearly the same results by chemical analysis. These are generally construed as vegetable productions.

10. Native sulphur is found in different forms, viz. either in solid pieces of indeterminate figure, running in veins through rocks, or in small lumps in gypsum and limestones, in considerable quantities at Salfatara, and in the neighbourhood of volcanos, or crystallized in pale transparent or semi-transparent, octagonal or rhomboidal crystals, in the cavities of quartz, and particularly in the matrices of ores; or in the form of small needles over hot springs, or near volcanos. The sulphur of commerce is extracted, by distillation, from the substance which has been so often mentioned under the name of pyrites, in which state it is combined with iron, and is so hard as to strike fire with steel. Pyrites, in colour and apppearance, resemble brass; some pieces are cubical; but in general this mineral has no determinate form.

Metallic substances are valuable for their durability, their capacity of assuming and retaining all sorts of forms and impresssions; the closeness of their texture, which renders them capable of polish; the firm cohesion of their particles, which renders them highly proper for utensils where great strength is required to be combined with moderate bulk. Several of the metals are also highly useful as medicines. The first and most obvious property of metals is their remarkable weight, in which they exceed all other bodies. By this circumstance they are distinguished from earths; the lightest of metals, which is tin, being seven times the weight of water, whereas the heaviest earth is only between four and five times the weight of water. Metallic substances are by far the most opaque of all bodies. The most opaque stone, divided into thin plates, has more or less transparency, whereas gold is the only metal which admits of being reduced to such a degree of thinness as to afford the smallest perceptible transmission of light. Metals are fusible by heat, and one of them (mercury) is well known to exist in a state of fusion in the ordinary temperature of the atmosphere. The particles of metals have a remarkably strong attraction for each other, which is evinced by small portions of metal, when in a state of fusion, having a tendency to assume a globular form. It is found that metals which, after having been fused, are suffered to cool gradually, evince a tendency to assume a regular figure, and to crystallize in general in an octagonal form. Metals, in their splendid or reguline state, have a considerable attraction for oxygen, and are in this respect nearly allied to the inflammable substances. Iron burns with a bright flame when heated to a certain degree, and immersed in vital air; and a mixture of tin and nitre produces a violent deflagration. Zinc, when heated and acted on only by common atmospheric air burns with a bright and vivid flame like phosphorus. Metals united with oxygen lose their splendor, malleability, and texture, and are denominated calces. According to the old chemical theory, the calx of a metal was deemed a simple substance, and was called the earth or basis of a metal; and it was supposed that this earth, united with phlogiston, constituted the metal in its perfect state. It is now, however, very satisfactorily proved, that the metallic state is the more simple, and that the calx is a combination of the metal oxygen. Metals which are malleable are called entire metals; and those which are brittle, semi-metals. Metals are also distinguished into perfect and imperfect. The perfect are such as are not calcined by being heated in contact with air, and are three in number, silver, gold, and platinas;

the other metals are calcined in those circumstances, and are called imperfect. Quicksilver holds a kind of middle place; for, like the base metals, it may be calcined, though not readily, and like the noble ores, it may be reduced by heat alone. Bismuth, zinc, antimony, arsenic, cobalt, nickel, manganese, molybdena, and wolfram, are scarce at all malleable, and hence they are called semi-metals. Nevertheless zinc, and purified nickel, are more malleable than any of the other semi-metals.

Metals exist in a state of nature in four different forms:

1. They are found in a native state of purity, with all the metallic properties. Gold is always found in this state; silver, copper, mercury, bismuth, and arsenic often; iron seldom; and lead, zinc, and regulus of antimony still more rarely.

2. Metals are found in the state of earth or calx, without the metallic aspect, and often resembling ochres.

3. The common state, however, in which metals are found is that of ores. In this state they are either combined with sulphur or with some metal, the most common of which is arsenic.

4. The last state in which metals are found, is that of a combination with saline substances, and almost always acids. The vitriolic acid is most frequently found combined with metals, viz. zinc, lead, copper, and iron. The carbonic acid is also a common mineralizer, and the arsenical and phosphoric acids have likewise been discovered in combination with metals. Metallic substances are more commonly found in mountains than in plains, and almost always in such mountains as form continued chains. It is in the stratafied mountains that metals most abound, where the inclination of the strata, in consequence of the convulsions of nature, brings a variety of substances into view, which must otherwise have been for ever concealed beneath the reach of human investigation. There are entire mountains which consist of iron ore, but in general the metallic part of a mountain is very inconsiderable in proportion to the whole. The ore sometimes runs parallel to the stony strata; the other, which covers it, is called the roof. Sometimes, however, the metallic strata, which are always more irregular than the other strata of which the mountain is composed, intersect the bodies which surround them in a variety of directions. The metallic ores are accompanied with stony matters, which seem to have been formed at the same time. These stones are usually quartz and spar; they are called the rider or matrix of the metal, and must neither be confounded with the mineralizing substance which is intimately combined with the metal, nor with the general mass of stone, of which the mountain containing the metal is composed. It is observed that the vegetables which grow on metalliferous mountains are dry, the trees small, sinuous, and deformed, and the sands often exhibit metallic colours. Mineral metallic springs are usually found in the vicinity; by the examination of which and of the sands over which they flow, a tolerably accurate judgment may be formed of the metallic contents of the neighbouring strata. From what is hitherto known of metals, there is every reason to believe that they are simple substances.

The order in which metals, compared with each other, possess most eminently their

principal properties, is the same in which they are here enumerated, beginning always with that metal in which the property is most considerable.

1. Specific gravity, or density, platina, gold, mercury, lead, silver, copper, iron, and tin.

2. Opacity. We cannot well compare metals with each other in this respect, because it is so considerable in all that it seems complete. If, however, they differ in this respect, the same order will serve for opacity as for density.

3. Metallic lustre or brilliancy. The same observations which were made concerning the last-mentioned property is applicable to this also. We must, however, observe, that as by polish bodies are rendered brighter, and that as whiteness contributes much to the reflection of light, the whitest and hardest metals, therefore, reflect best. Hence, according to Mr. Macquer, platina ought to be placed first, then iron, or rather steel, silver, gold, copper, tin, lead. Their reflective powers will be found to be more nearly in the following order, than in that above mentioned from Mr. Macquer. Silver, quicksilver, tin, gold, copper, iron, lead.

4. Ductility. Gold, silver, copper, iron, tin, lead. The ductility of mercury, and that of platina, are not yet determined.

5. Hardness. Iron, platina, copper, silver, gold, tin, and lead.

6. Tenacity. By tenacity we understand the force with which the integrant parts of metal resist their separation. This force appears to be in a compound ratio of their ductility and hardness. The comparitive tenacity of metals is measured by the weight which wires, of the same diameter, made of the several metals, can sustain without breaking. Gold is the most tenacious; then iron, copper, silver, tin, lead. The tenacity of mercury is unknown; that of platina is not yet determined, but is probably considerable.

7. Fusibility. Mercury, tin, lead, silver, gold, copper, iron; and, lastly, platina, which cannot be fused by the greatest fire of our furnaces, but only by the solar focus, or by a fire excited by dephlogisticated air.

I. Gold is the heaviest of all the metals except platina, being between nineteen and twenty times the weight of water. When perfectly pure it is almost as soft as lead, and is neither elastic nor sonorous. For its fusion it requires rather more heat than silver, and when in fusion has a bluish green colour, and its surface is always perfectly bright. The most intense heat cannot calcine it, and only contributes to render it more pure if it had any foulness. The powerful burning mirrors are said to have volatilized it, and it has been driven up in fumes, in the metallic state, by flame urged upon it by a stream of vital air. The electric fluid, however, when made to pass in considerable quantities through gold leaf, inclosed between two plates of glass, converts it into a calx, which tinges the glass of a purple colour. The tenacity of gold is so great, that a wire, one-tenth of an inch in diameter, is capable of supporting 500 pounds. Its malleability and ductility exceed those of silver, and are so remarkable, that their limits could never be ascertained with any considerable exactness. On gold lace the thickness of the gold has

been computed to be less than the 134,000th part of an inch, and the degree of extensibility has been carried still farther. In ordinary gold leaf, which is made by hammering plates of gold between skins, or animal membranes, a grain is made to cover 56 square inches and a quarter. In this state its surface is so great that it may be made to float in the air with the slightest agitation, and its thickness is not more than the 282,000th part of an inch.

Gold is produced by nature very plentifully. There is much of it in Brazil, in the Spanish East and West Indies, on the coast of Africa, and in Upper Hungary, where the mines have remained inexhausted for ten centuries. Peru and Mexico abound with gold in a variety of forms. It is met with in the sands of rivers and mountains. Some rivers in France, as well as in this country, contain gold in their sand. It is also found in the fissures of rocks, imbedded in hard stones. Pieces of gold of several ounces, and even pounds weight, are sometimes found, but in general it is diffused in so small portions, and through so large a quantity of sand, that the trouble of extracting it is scarcely repaid by the gains. In all parts of the world, particularly in Europe, gold is most frequently found in strata of sand, in which it seems to have been deposited by water. Gold mines were once wrought in Scotland, and it appears upon record that 48,000 pounds sterling of this gold was coined in the Scottish mint. It is now a general opinion among mineralogists, that there are scarcely any sands entirely free from gold, and which, by accurate examination, cannot be made to afford more or less of that substance.

Considering that gold has no attraction for sulphur, and very little for arsenic which are the usual mineralizers of metallic bodies, it is not surprising that it should be usually found in a separate, and nearly pure state. The metallic bodies, with which it is alloyed in a state of nature, seldom constitute any considerable part of its weight; they are generally either silver, copper, or iron. Gold, however, is sometimes mixed with martial pyrites, and is sometimes contained in an ore, which is a mixture of lead, silver, and iron, mineralized by sulphur. In these cases the presence of gold is not known by the appearance of the mineral, and can only be discovered by roasting, and subsequent fusion with such matters as are capable of vitrifying the earthy and martial substances. The addition of lead is also useful, which unites with the gold, and carries it to the bottom of the mass. The gold is easily obtained free from the lead by the process of cupellation.

II. Platina. In the beginning of the year 1749, the first species of this metal was brought into England from Jamaica. It was said to have been originally brought from the Spanish West Indies, and it is still almost exclusively found in the gold mines of Spanish America. It is brought over in the form of small smooth grains, irregularly figured with round edges, and is often mixed with ferrugineous sand, and grains of quartz or crystal. The grains of platina are whiter than iron, but less so than silver, and their flat form is probably owing to the pressure they undergo in the mills in which the gold is amalgamated. In confirmation of this opinion, small particles of gold and mercury are usually found mixed with the grains of platina. In the state in which they are brought over, they fall short of the weight of gold, but by purification, (which is per-

formed by washing them with the muriatic acid, and by exposing them for a long time to the heat of the most violent furnaces, which, however, are said to be insufficient to melt them,) exceed it. The specific gravity of gold is about nineteen times that of water, whereas platina, which still contains so much iron, as to render it magnetical, is upwards of twenty-one times the weight of that fluid. It is extremely difficult to free platina from the last portions of iron, but some minute particles, which have been fused by the focus of a burning-glass, and so far purified as not to be attracted by the magnet, appear to exceed twenty-two times the weight of water. Platina is, perhaps, the most perfect of all the metals. As it so considerably exceeds even gold in weight, it is, therefore, to be considered as the most ponderous body in nature. It has several properties in common with that most useful of metals, iron. In hardness it approaches to that metal in the state of steel; and in infusibility it exceeds it even in the state of soft iron; it also considerably resembles iron in appearance, and it is the only metal, besides iron, which has the property of welding.

III. SILVER is the whitest of all metals, and is possessed of great brilliancy; it is harder than gold; in weight it is exceeded by gold, platina, quicksilver and lead; its malleability is so great, that a grain of it, reduced to ordinary silver leaf, measures about 51 square inches, in which state it is not more than the 160,000th part of an inch thick, which, however, is considerably more than one-third thicker than gold leaf. Its tenacity is so considerable, that it may be drawn into wire about half the thickness of a fine human hair; and a wire of one-tenth of an inch in diameter will support the weight of 270 pounds without breaking. It is very sonorous, but in hardness and clasticity it is not equal to copper. It hardens under the hammer, but very readily loses that hardness by heating. Silver, exposed to the heat of the most powerful burning lenses, is partly vitrified, and partly volatilized in fumes, which are found, when received on a plate of gold, to be silver in the metallic state. It is likewise said to have been partly calcined by twenty successive exposures to the heat of the porcelain furnace at Seves. This, however, may be doubted, as silver does not undergo any degree of calcination by exposure to heat, even with the addition of nitre. Silver melts in the first degree of white heat, and appears in the fire like the finest quicksilver. When it is hastily cooled, it exhibits a curious phenomenon, called vegetation; for we discover from different parts of its surface, ramifications and branches like those of trees which sprout out with a stem. The reason of this appearance seems to be the irregular contraction which the silver undergoes in passing from the fluid to the solid state. The melted silver suffers the first commencement of congealation at its surface; by these means a crust is formed, which, by its sudden contraction, compresses the fluid silver within; thus a protuberance is formed, which, congealing in its turn, contracts and presses the intermediate fluid through its crust into branches. The air alters silver very little, unless it contains sulphureous vapours, which it often does from the putrefaction of animal substances, or the exhalations of drains, or of sulphureous mineral waters. This metal, therefore, becomes somewhat tarnished by long continued exposure to the atmosphere, and in time becomes covered with a thin purple, or black coating, which, after a long

series of years, has been observed to scale off from images of silver exposed in churches, and was found on examination, to consist of silver united to sulphur. Silver is often found in its native state, and may be known by its brilliancy and ductility. It is sometimes met with within irregular masses, sometimes in the form of capillary threads or fibres, and sometimes in that of branches, formed by octahedrons, inserted one into the other. It is also often dispersed in a quartzose gangue.

Native silver is sometimes found alloyed with gold, copper, iron, or regulus of antimony; but native gold much oftner contains silver than native silver does gold. Silver is not naturally found in the state of calx. The vitreous ore of silver is composed of that metal and sulphur. It is the richest of the silver ores, and yields from seventy to eighty pounds of the metal in the hundred weight. If it is of a blackish grey colour, resembling lead; some specimens are brown, greenish, yellow, &c.; it may be cut with a knife, and is sometimes crystallized. It is exposed to a heat not sufficient to melt it, the sulphur is dissipated, and the virgin silver is obtained in fibres. The red silver ore contains arsenic as well as sulphur. It is a heavy shining substance, sometimes transparent, sometimes opaque, but commonly crystallized. It is often of a deep red colour on the outside, but appears paler within. It affords about half its weight of silver. If it is exposed to a fire carefully managed, and capable of igniting it, the silver is reduced, and forms capillary fibres, similar to native silver. There is a silver ore containing arsenic, cobalt, and iron, mineralized by sulphur. This ore sometimes yields half its weight of silver; it varies in its appearance, being sometimes of a grey and brilliant aspect, but often of a dull and tarnished colour, with efflorescencs of cobalt. The goose-dung ore belongs to this species. The grey ore of silver contains a large quantity of copper. The black silver ore, called nigrillo by the Spaniards, seems to be a middle state between native silver and some of its ores, or those ores in a state of imperfect decomposition. The corneous silver ore is a natural combination of silver and muriatic acid, with a small quantity of vitriolic acid. Silver is also found in considerable quantity in the ores of other metals, particularly those of antimony, zinc, lead, and copper.

IV. Mercury. The circumstance which most remarkably distinguishes mercury, or quicksilver, from the other metals, is its strong attraction for heat, so that it retains the state of fluidity at the ordinary temperature of the atmosphere, and at the temperature of 600° of Fahrenheit is converted into vapour; few of the other metals, therefore, melt at so low a point as that at which mercury boils and is volatilized. It was long taken for granted that there was something peculiar in mercury, which rendered it necessarily fluid; but the academicians of Petersburgh have proved that this is an erroneous idea, and shewn that mercury differs from other metals merely in the degree of heat at which it passes from its solid to its fluid state. The congelation of mercury has been affected in a variety of instances by the help of the nitrous acid and snow, or pounded ice, commonly called the freezing mixture, and the congellation is found to take place at the 39° below 0 of Fahrenheit's thermometer. Mercury, in its solid form, is found to have considerable malleability, but this cannot be proved to its fullest extent, because the hammering of it produces very soon a degree of heat sufficient to melt it. Mercury being

a metal in a state of fusion, always affects the form of globules when it is divided; and when it is confined in a bottle, its surface is convex, from the strong attraction of its particles for each other. If the vessel, however, in which mercury is confined, is metallic, its surface appears concave, from the tendency which it has to unite itself to the sides of the vessel, which attraction overcomes that between its own particles. When mercury is submitted to that degree of heat at which it is volatilized, and is at the same time exposed to the action of atmospherical air, it is gradually converted into a calx of a red colour, the hydrargyrus calcinatus of the London Pharmacopeia. A greater heat, however, revives this metallic calx, and at the same time the vital air is again extricated. Mercury is not sensibly acted on by exposure to air, but by long continued agitation it becomes partly converted into a very fine black powder. The mercury is not changed in this experiment, unless, perhaps, it should be found that it absorbs some part of the vital air contained in the vessel in which it is confined. By a slight heat, or by trituration in a warm mortar, it may be made to resume its usual fluidity and brilliancy. Mercury is found in the earth, either in its native metallic state, or combined with sulphur, when it is called cinnabar. Running mercury is found in globules, or larger masses, in friable earths or stones, and most commonly in the clefts or cavities of its ores. It is more frequently, however, imbedded in calcareous earths or clays of different colours, from which it may be separated, either by trituration or lotion, the smaller globules coalescing by mutual contact into larger; or by distillation. More mercury is found in the state of cinnabar than in its metallic form. This ore consists of mercury and sulphur combined together in different proportions. Cinnabar is sometimes found in the form of a brilliant red powder, and is then called native vermilion; sometimes in an indurated state, and, though generally red, has been sometimes observed of a yellowish or blackish cast; it is mostly opaque, but some specimens are as transparent as a ruby. Mercury is too volatile to admit of the sulphur being separated from it by roasting; these substances are both so volatile that they would rise together. In order to separate mercury from its ore, it is necessary to add quick lime, or iron filings, unless some substances of a similar nature happen to be naturally mixed with it; the mass is then submitted to distillation, and the calcareous earth, or iron filings, by superior attraction, detains the sulphur while the mercury comes over in the state of vapour, and is condensed in the receiver. Different cinnabars yield from three parts to seven parts in eight of their weight of mercury. Mercury has sometimes been found united with the muriatic acid, vitriolic acids, and with the ores of some other metals. It is thought to be not abundant in nature; but this opinion may be partly owing to its volatility, which may prevent it from being discovered in many minerals that may contain it.

V. Copper is a metal of a peculiar red colour, and when its surface is fresh and clean, it has a considerable degree of splendor. It is hard, ductile, and malleable to a considerable degree, and remarkably sonorous. It has a peculiar and unpleasant smell, particularly when rubbed. Its taste is styptic and nauseous. Its tenacity is such, that a copper wire, of one-tenth of an inch in diameter, is capable of supporting a weight of about three hundred pounds. Its fracture exhibits the appearance of small

grains. Its gravity is about nine times that of water. Copper has a great degree of strength and rigidity, approaching to that of iron. It is not inflammable like iron, and is therefore used in gunpowder works, instead of that metal. It does not admit, like iron, of being welded, but this defect is compensated by its greater fusibility, by which it may be always formed into the desired shape. It requires for its fusion about the same heat as gold and silver. When in fusion, for which it requires a strong white heat, it appears of a bluish green colour, which arises from a flame of that colour on its surface. By a very violent heat it boils, and is volatilized partly in the metallic state. Copper, in a heat far less than is sufficient to melt it, becomes calcined at its surface, and exhibits various colours. In a greater heat than is sufficient to produce this effect, its surface is converted into thin scales, which may be easily scraped off. Copper is sometimes found native, having the metalic splendor, the malleabillity, and all the properties of ordinary copper. It has sometimes the form of plates, sometimes that of fibres or branches, and is sometimes crystallized. Copper, in its metallic state, is sometimes found deposited in ores of iron, in which case it must be considered as having been separated from native vitriol of copper, by the superior attraction of iron for the vitriolic acid. The native solutions of copper often deposit that metal, in a calcined state, in beds of calcareous earth. The turquoise stone is the tooth of an animal, penetrated with the blue calx of copper. Copper is generally found, however, contained in ores. These are frequently mineralized by sulphur. What are improperly called the vitreous ores of copper are of this kind ; they are brown, red, and grey, and these colours are frequently mixed with a greenish or violet tinge. These melt easily, are very ponderous, may be scratched, or even cut with a knife, and are very rich in metal, as an hundred pounds of them usually yields from eighty to ninety of copper. The azure copper ore differs from the former chiefly in containing a considerable quanity of iron. The grey copper ores, which have not much splendor, consist of copper, sulphur, arsenic, and some iron. What are called copper pyrites contain in reality more iron than copper, but yield enough of the latter metal to answer the expense of working them ; they are generally of a yellow and brilliant aspect. Copper is also, in some specimens, found united with slate, pit-coal, zinc, and antmony.

VI. Lead. The appearance of this metal is well known. It is so soft as to cut with a knife without much difficulty. It is neither sonorous nor elastic. It has very little tenacity, and therefore cannot be drawn into fine wire. It spreads easily under the hammer, but cannot be extended into very thin leaves like gold, silver, and tin. Its specific gravity is rather greater than that of silver, being eleven times heavier than water, and it is exceeded in this respect by only three metals, gold, platina, and mercury. Lead is very rarely found native. It is sometimes found in the form of a calx, called native ceruse, or lead ochre, or in that of lead spar of various colours, and which are in general either rhomboidal or cubical. Lead combined with sulpher is called galena, which is composed in general of laminæ, but are more brilliant, and very brittle. A great variety of these ores have been discovered, which it will not be necessary to enumerate. Lead, in some instances, has been found combined with various acids ; the vitriolic, the

phosphoric, the carbonic, and the arsenical. The ores of lead very commonly contain silver, and sometimes antimony.

VII. Tin, when its surface is fresh, is bright, and with respect to whiteness holds a middle place between lead and silver. Tin is the lightest of all metals, being only about seven times heavier than water. It produces a crackling noise when it is bent, though it yields easily. It is very soft, and probably from this cause it is scarcely at all sonorous. It is considerably malleable, and may be reduced beneath the hammer into laminæ,, thinner than the leaves of paper, (commonly known by the name of tinfoil) which are of great use in several arts, particularly the foiling of looking-glasses. Its degree of toughness is such, that a wire of tin of the tenth of an inch in diameter, supports a weight of forty-nine pounds and a half without breaking. Tin is the most fusible of metals. It is observed by miners, that though tin is the lightest of the metals, its ores are some of the heaviest. Tin is seldom or never found in the metallic or reguline state. The ores are often crystallized, and of different colours. Those which are of a reddish colour generally contain a large proportion of iron. There also is a sulphureous tin ore of a brilliant colour, similar to that of zinc, or golden, like aurum musivum. The more transparent ores of tin often contain arsenic, and this is separated, almost entirely, by repeated roastings.

VIII. Iron. The external appearance of this metal is well known, and its hardness and elasticity are seen in the various instruments and utensils which are formed of it. It is the most sonorous of all the metals, except copper; but in specific gravity it is inferior to most of them, being only about seven times and a half the weight of water. Iron has a considerable smell, especially when rubbed or heated. It likewise has a very perceptible styptic taste. Iron is very ductile, and may be drawn into wire as fine as a human hair; and it is so tenacious, that an iron wire of one-tenth of an inch diameter will support a weight of fifteen hundred pounds. Iron is by far the most abundant in nature of all the metals. It is not only contained in almost every fossil, particularly in those which are coloured, but makes a part of vegetable and animal matter.

IX. Zinc. This metal is in some degree malleable, and, therefore, holds a middle place between the semi-metals and metals, though it is usually referred to the former division. Its appearance is blue and brilliant, and when broken it is found to be crystallized in narrow plates. Zinc is found in the following states: It is sometimes, though rarely, discovered native in flexible, greyish, and inflammable fibres. Zinc in its ore is generally in the form of a calx, when the ore contains no other metal but zinc it is never in any other form, but it is often mixed with other ores, which contain sulphur and arsenic, and these must be evaporated by roasting. The richest ores are compact and ponderous, and are called lapis calaminaris, or calamine; they are found in the parish of Holywell, in Flintshire.

Antimony. The substance which is commonly called by the name of antimony, is a combinatien of that metal with sulphur. This mineral is of a blackish grey, in brittle plates or needles, of various magnitudes, joined together in different forms. It is sometimes mixed with other metals, particularly lead and iron, and is very common

in Hungary, and in some of the provinces of France. From this ore the regulus of antimony is separated by fusion. The appearance of antimony is bright, approaching, when very fine, to that of silver. It is very brittle, and is composed of oblong plates of laminæ. When melted it forms a smooth mass like other metals, but upon breaking it, we find the plated appearance on the inside. The plated appearance depends on the crystallization, which begins at the part that first congeals. The regulus of antimony, which is prepared for commercial purposes, is cast into flat and circular pieces, which have a crystallization on their surface, in the form of the leaves of fern.

XI. Bismuth is extremely brittle, so that it may be easily separated, and even reduced to powder by the hammer. When broken it exhibits at the place of fracture large shining plates, disposed in a variety of directions. It is considerably ponderous, and is of a yellowish white colour; when in thin plates it is in some degree sonorous. Bismuth is often found native. It is also found united with arsenic, sulphur, iron, and sometimes in a calciform state. The sulphureous ore of bismuth is of a whitish grey, inclining to blue; it has the brilliancy and colour of lead ore or galena, and almost always exhibits square facets, but it is never found in fragments truly cubical.

XII. Arsenic is often found native, in black heavy masses, but not very brilliant. It has sometimes the metallic lustre, and reflects the colours of the rainbow; in its fracture it is more brilliant than at its surface, and seems composed of a great number of small scales. Native arsenic is very easily known, when it has the metallic brilliancy and scaly texture. Arsenic, however, is more frequently found in the form of flowers, or mixed with certain earths. Cobalt ores contain much arsenic, and that which is commonly sold is brought chiefly from the cobalt works in Saxony. The regulus of arsenic is of a bright yellowish white colour, very ponderous and friable, and subject to tarnish and become black on exposure to air. If heat is applied to the regulus in contact with air, it is volatilized before it melts, and is at the same time imperfectly calcined. The fumes are dangerous, and have a strong and offensive smell resembling that of garlic.

XIII. Cobalt has never been found native, that is in a metallic state, but is almost always calcined or united with arsenic, the arsenical acid, sulphur, iron, vitriolic acid, &c. Minerals containing cobalt are frequently of a pink colour, which arises from the presence of arsenical acid, and its colour is destroyed by fire, in proportion as the acid is dissipated. The regulus of cobalt is of a whitish grey or steel colour, hard, brittle, of a dull close-grained fracture, and moderate specific gravity. It has about the same degree of fusibility as copper; does not easily become calcined; and its calx is of so deep a blue colour as to appear black.

XIV. Nickel. This metal derives its name from the mineral in which it is contained. It is found united with sulphur and arsenic. Its ores have a coppery red colour, are almost always covered with a greenish grey efflorescence, and have been mistaken for ores of copper. The regulus of nickel cannot be obtained pure, but is combined with portions of cobalt and iron. It is considerably attracted by the magnet, and has on this account been considered by some as a modification of iron

XV. Manganese. This metal is almost always found in the state of calces, which vary much in colour and appearance; they are white, blue, yellow, red, dark green, and black, according as they are united with more or less oxygen, or contaminated with foreign substances. The darker coloured the ores, the more oxygen they may be supposed to contain, as any process which deprives them of this principle always renders them paler. Manganese is also found crystallized in a variety of forms. The regulus of manganese is very difficultly obtained. Its colour is a dusky white, but its masses are irregular and uneven from imperfect fusion. Its fracture is bright and shining, but it soon tarnishes, and becomes blackish on exposure to air. When pulverized it is always magnetic, though it has not this property in the mass. If exposed to air, particularly in moist weather, it soon crumbles into a blackish brown powder, which is somewhat heavier than the regulus from which it was produced.

XVI. Molybdena. This is a mineral substance, which has till lately been confounded with plumbago, but is now found to be a combination of a particular metallic substance with sulphur. It is of a blackish colour, and consists of shining laminæ, which have a degree of flexibility so as to be very difficultly reduced to powder.

XVII. Tungstein, or wolfram, is a particular metal, the ore of which has frequently been confounded with that of tin. The specific gravity of this ore is to water as six to one; in its form of crystallization it resembles the garnet, and varies in colour, from a pearl white to a yellow and reddish; it is found in several parts of Saxony and Bohemia. The mineral called wolfram, which is frequent in the mines of Cornwal, is likewise an ore of this metal; in all these ores the metal is oxydated; and in some of them it appears to be oxygenated to the state of an acid, being combined with lime into a true tungstat of lime.

The seventeen metallic substances which have been here enumerated, were till lately considerated as comprehending the whole of this class of minerals, but from the researches of modern chemists, four more have been added to the number, viz. Uranium, Titanium, Tellurium, and Chronium. Uranium has been discovered in a mineral called peckblende, which is found in Saxony. Klapsoth examined this mineral in 1789, and found that it consisted chiefly of sulphur, combined with a new metal which he denominated tellurium. Uranium is of a dark grey colour; internally it is somewhat inclined to brown. Its malleability is unknown. Its hardness is about six. It requires a stronger heat for fusion than manganese. Indeed Klapsoth only obtained it in very small conglutinated metallic grains, forming altogether a porous and spongy mass. Its specific gravity is six times that of water.

There is a mineral found in Hungary, which, from its external appearance, has been called *red shorl*; but Klapsoth, who examined it about the year 1795, discovered that it consisted chiefly of a peculiar metal, to which he gave the name of titanium. Titanium is of a brownish red colour, and considerable lustre: it is brittle; its hardness is nine: its specific gravity is to that of water as four to one. When exposed to a strong heat in a clay crucible, it suffered no alteration, except that its colour became browner;

out in a coal crucible it lost its lustre and broke to pieces. It is found naturally crystallized in right angled quadrangular prisms, longitudinally furrowed, and about ½ inch in length.

In the mountains of Fatzbay, near Zalethna in Transylvania, there is a mine called Mariabilf, the ore of which is wrought for the gold that it contains. Mr. Muller, of Reichenstein, examined it in 1782, and suspected that it contained a new metal: and Bergman, to whom he had sent some of the ore, was of the same opinion; but the quantity of the mineral which these chemists had examined was too inconsiderable to enable them to decide with certainty. Klaproth analized a larger quantity of it about the year 1797, and found that one thousand parts of it consisted of 72 parts of iron, 2,5 of gold, and 925,5, of a new metal, to whom he has given the name of tellurium.

Tellurium is of a white colour like tin, approaching somewhat to grey colour of lead. It is very brittle and friable. Its fracture is laminated. Its specific gravity is 6,116. It is as easily melted as lead. When suffered to cool quietly and gradually, it readily assumes a crystallized surface.

Chronum has been lately discovered. A new metal has lately been discovered by Vauguelin, in the red lead ore of Siberia. It is grey, very hard, brittle, and easily crystallizes in small needles. He has given it the name of chronum because it possesses the power of giving colour to other bodies in a remarkable degree.

CHAPTER VI.

ŒCONOMY OF VEGETATION.——*Parts of Vegetables—Their dissemination, growth and decay.*

ALL natural bodies have been classed by philosophers under two grand divisions, unorganized and organized bodies. The former of these have been already considered; the latter which includes what the old writers denominate the vegetable and annual kingdoms, will furnish a subject for this and the two succeeding chapters. Unorganized bodies consist of simple combinations of a vast variety of different elementary principles. Organized bodies, on the contrary, consist of few principles; but in the proportions, combinations, and arrangement of these principles, they are infinitely varied; and their structure is as complex as their materials are simple. Thus, in the mineral creation we may enumerate not fewer than 40 distinct elementary principles; the vegetable creation, for the most part, consists only of three; and the utmost to which it can be extended, is about six or seven distinct species of matter, which occasionally enter into the composition of those varied beauties, that singularity of structure, that vast assemblage of organized bodies, so different in qualities and external appearance, which the woods, the fields, and the gardens present to our view; so numerous that they have hitherto eluded the art of the most skilful botanists to methodize and arrange.

The constituent or elementary principles of vegetables, are hydrogen, oxygen, and charcoal. These, as far as our observations have hitherto extended, are common to all vegetables. There are some other substances, such as calcareous earth, iron, and azote, which are occasionully found in vegetables; but as they are not common to all plants, they cannot be considered as essential to the constitution of vegetable matter.

A plant is defined to be an organized body, destitute of sense and spontaneous motion, adhering to another body in such a manner as to draw from it its nourishment, and having a power of propagating itself by seeds. The parts of vegetables which naturalists are accustomed to consider as distinct in their nature and functions, are six, the stem or trunk, the root, the leaf, the flower, the fruit, and the seed.

1. The stem or trunk, which includes also the branches. It consists of three parts, the bark, the wood, and the pith. The bark is protected on the outside by a skin, which consists sometimes of numerous layers, and differs in thickness in different plants. This skin is composed of very minute bladders, interspersed with longitudinal woody fibres, as in the nettle, thistle, and the generality of herbs. It contains also longitudinal vessels, and is visibly porous in some plants, and particularly the cane. The true bark may be considered as a mass of pulp or cellular substance, in which are placed a number of vessels, as well as longitudinal fibres. The vessels of the bark are differently situated, and destined for various uses, in different plants. In the bark of the pine, for

instance, the inmost are lympheducts, exceedingly minute; those neatest the surface are gum or resiniferous vessels, for the secretion of the turpentine, and these are so large as to be visible to the naked eye. The wood lays between the bark and the pith, and consists of two parts, the cellular and the woody. The woody parts are no more than a mass of old dried lympheducts. Between the bark and the wood a new ring of these ducts is formed every year, which gradually loses its softness as the cold season approaches, and towards the middle of winter is condensed into a solid ring of wood. These annual rings, which are visible in most trees when cut transversely, serve as marks to determine their age. They seem to decrease in breadth, as the tree advances in age; and as they are found to be very unequal in size throughout, their breadth probably varies according as the season is favourable or otherwise. The pith is situated in the centre of the stem, and in young plants it is very abundant. It is said by some authors to consist of exactly the same substance as the cellular substance of the bark; and to be composed of small cells or bladders, generally of a circular figure, though in some plants, as the borage and thistle, they are angular. In most plants the pith gradually dies away as they approach to maturity; and in old trees it is almost entirely obliterated.

2. The root which fixes the plant to the earth, and is the chief source of its nourishment, differs much in different species of vegetables. All roots agree in being fibrous at their extremities, and it is by their fibres chiefly that they are fitted to draw nourishment. The root terminates upwards in the stem or trunk, which sustains the other parts of the vegetable. The internal structure of the root, or rather of its fibres, differs not very materially in general from that of the stem. It consists of a cuticle, bark, wood, and commonly of a small portion of pith; though there are some roots which have no pith at all, while there are others which have little or none at the extremities, but a considerable quantity near the top.

3. The leaves are organs essential to the existence of plants. Trees perish when totally divested of them; and in general, when stript of any considerable proportion of their leaves, they do not shoot vigorously. The leaves are formed by the expansion of the vessels of the stalk into a net-work, which exhibits a beautiful appearance when the intermediate parenchymatous matter is consumed by putrefaction. Both surfaces of the leaf are covered with a membrane, which is a thin bark, continued from the scarf-skin of the stalk.

4. The flower consists of four parts, the calyx, the corrolla, the stamina, and the pistillum. The calyx, or flower-cup, is almost always of a green colour, and is that which surrounds and supports all the other parts of the flower. The corrolla is of various colours, is variously shaped in different vegetables, and is that which constitutes the most conspicuous part of the flower. It sometimes consists of one continued substance, but more frequently of several portions, which are called petals. The stamina are supposed to be the male part of the flower. Linnæus defines them to be an entrail of the plant, designed for the preparation of the pollen. Each stamen consists of two parts; the fillimentum or fire-thread, which supports the anthera, and the anthera itself, which,

contains within it the pollen, and when come to maturity discharges it for the impregnation of the germen. From the supposed function of the stamina, they afford the chief foundation of the distribution of the vegetable system into classes. Such flowers as want this part are called female; such as have it, but want the pistillum, male; such as have them both, hermaphrodite; and such as have neither, neuter. The pistillum, or pointal, is supposed to be the female part of the flower; it is defined by Linnæus to be an entrail of the plant, designed for the reception of the pollen. It consists of three parts, the germen, the style, and the stygma. The germen is the rudiment of the fruit accompanying the flower, but not yet arrived at maturity. The style is the part which serves to elevate the stygma of the pistillum, and is covered with a moisture for the breaking of the pollen. The seed vessel is the germen grown to maturity. Such are the constituent parts of the flower; they are, however, infinitely varied, and serve both to diversify the face of nature, and to interest and delight the curiosity of man. One curious fact it is necessary to notice, before we dismiss this branch of our subject, and that is, that every flower is perfectly formed many months before it makes its appearance. Thus the flowers which appear in this year are not properly the productions of this year: the mezerean flowers in January, but the flowers were completely formed in the bud in the preceding autumn. If the coats of the tulip-root also are carefully separated about the beginning of September, the flower, which is to appear in the following spring, will be found in a small cell, formed by the innermost coats.

The impregnation of the germen is performed in the following manner: the antheræ, which at the first opening of the flower are whole, burst soon after, and discharge the pollen. Being dispersed about the flower, part of the pollen lodges on the surface of the stigma where it is detained by the moisture with which that part is covered. Each single grain or atom of the pollen has been observed by the microscope to burst in this fluid, and is supposed to discharge something which impregnates the germen below; what the substance is which is so discharged, and whether it actually passes through the style into the germen, seems yet undetermined, from the great difficulty of observing such minute parts and operations. In some vegetables the stamina move towards the pistillum; and a very evident motion of them is observed in the flowers of the common berberry, on touching them with the point of a pin.

5. The fruit consists of nearly the same parts as are found in the stem; of a skin or cuticle, which is a production or continuation of the skin of the bark; of an outer pulp, which is the same substance continued from the bark, only that its vesicles are larger and more succulent or juicy. Next the core there is commonly an inner pulp; and the core is no more than a hard woody membrane, which incloses the seed. It is to be observed, however, that the organization of fruit is very various; in some the seeds are dispersed through the parenchymatous or pulpy substance; in some, instead of a core we find a strong wood substance, inclosing the seed or kernel, which, from its great hardness is termed the stone; in some there are a number of seeds; and in others, only a single seed, inclosed in a large mass of pulpy matter.

6. The seed is a desiduous part of a vegetable, containing the rudiment of

The essence of the seed consists in the corculum or little heart, which is fastened to the lobes, and involved in them, and closely covered by its proper tunic. The corculum consists in the plumula; which is the vital speck of the future plant, extremely small in its dimensions, but increasing like a bud to infinity. The rostellum, however, must be included, which is the base of the plumula ; it descends and strikes root, and is the part of the seed originally contiguous to the mother plant. It is commonly supposed, and with some reason, that the perfect plant, or at least all the organization which is requisite to a perfect plant, exists in the seed, surrounded by a quantity of farinaceous matter, which serves to absorb moisture, and to furnish nourishment to the corculum till its parts are sufficiently unfolded to draw support from the soil. A kidney-bean or lupine, when it has been soaked for some time in water, and begun to swell, is easily separated into its two lobes ; and between these is displayed the infant plant. The naked eye can easily discern the stem, and its connexion with the lobes. Through the lobes are diffused innumerable vessels, which immediately communicate with the embryo plant. On the external surface of the seed are absorbent vessels, which attract the moisture ; by this moisture a degree of fermentation is produced, and thus a juice is prepared by a natural process in every respect proper for the nourishment of the plant in its first efforts to extend its tender frame.

So great are the prolific powers of the vegetable kingdom, that a single plant, if left to itself, would in a short time over-run the whole world. If the plant were only a single annual with two seeds, it would, in 20 years, produce more than a million of its own species ; what numbers then must have been produced whose seeds are so numerous as many of those with which we are acquainted. If nature had appointed no means for scattering these numerous seeds, but allowed them to fall down in the place where they grew, the young vegetables must of necessity have choaked one another as they grew up, and not a single plant could have arrived at perfection ; but so many ways are there appointed for the dissemination of plants, that we see they not only do not hinder each other's growth, but a single plant will in a short time spread through different countries. The most evident means for this purpose are,

1. The force of the air. That the efficacy of this may be the greater, nature has raised the seeds of vegetables upon stalks, so that the wind has thus an opportunity of acting upon them with the greater advantage. The seed-capsules also open at the apex lest the ripe seeds should drop out without being widely dispersed by the wind. Others are furnished with wings, and pappous down, by which, after they come to maturity, they are carried up into the air, and have been known to fly to the distance of 50 miles ; 138 genera are found to have winged seeds.

2. In some plants the seed vessels open with violence when the seeds are ripe, and thus throw them to a considerable distance, and we have an enumeration of 50 genera whose seeds are thus dispersed.

3. Other seeds are furnished with hooks, by which, when ripe, they adhere to the coats of animals, and are carried by them to their lodging places. Linnæus reckons 50 genera armed in this manner.

4. Many seeds are dispersed by means of birds and other animals, who pick up the berries, and afterward eject the seed uninjured. Thus the fox disseminates the privet and many other species of fruit. The plants found growing upon walls and houses, on the tops of high rocks, &c. are mostly brought there by birds; and it is universally known that by manuring a field with new dung, innumerable weeds will spring up which did not exist there before: 193 species are reckoned up which may be disseminated in this manner.

5. The growth of other seeds is promoted by animals in a different way; while some are eaten, others are scattered and trodden into the ground by them. The squirrel gnaws the cones of the pine, and many of the seeds fall out. When the lexica eats off the bark, almost his only food, many of their seeds are committed to the earth, or mixed in the morass with moss where he had retired. The glandularia, when she hides up her nuts, often forgets them, and they strike root. The same is observable of the walnut; mice collect and bury great quantities of them, and being afterwards killed by different animals the nuts germinate.

6. We are astonished to find mosses, fungi, byssus, and mucor growing every where, but it is for want of reflecting that their seeds are minute, that they are almost invisible to the naked eye. They float in the air like atoms, and are dropped every where, but grow only in those places where there was no vegetation before; and hence we find the same mosses in North America and in Europe.

7. Seeds are also dispersed by the ocean, and rivers. "In Lapland," says Linnæus, "we see the most evident proofs how far rivers contribute to deposit the seeds of plants. I have seen Alpine plants growing upon their shores frequently 36 miles distant from the Alps; for their seeds falling into the rivers, and being carried along by the stream, take root there. We may gather, likewise, from many circumstances, how much the sea contributes to this business. In Roslagia, the island of Græsoea, Oeland, and the shores of Scania, there are many foreign and German plants, not yet naturalized in Sweden. The centauny is a German plant, whose seeds being carried by the wind into the sea, the waves landed this foreigner upon the coasts of Sweden. I was astonished to see the veronica maritima, a German plant, growing at Tornea, which hitherto had been found only in Græsoea; the sea was the vehicle by which this plant was transported hither from Germany; or possibly it was brought from Germany to Græsoea, and from thence to Tornea. Many have imagined, but erroneously, that seed corrupts in water, and loses its principle of vegetation. Water at the bottom of the sea is seldom warm enough to destroy seeds; we have seen water cover the surface of a field for a whole winter, while the seed which it contained remained unhurt, unless at the beginning of spring the water was let down so low by drains, that the warmth of the sun-beams reached to the bottom. Then the seeds germinate, but presently become putrid; so that for the rest of the year the earth remains naked and barren. Rain and showers carry seed into the cracks of the earth, streams, and rivers, which last conveying them to a distance from their native places, plant them in a foreign soil."

8. Lastly, some seeds assist their projection to a distance in a very surprising man-

ner. The orupina, a species of centaury, has its seeds covered with erect bristles, by whose assistance it creeps and moves about in such a manner that it is by no means to be kept in the hand. If you confine one of them between the stocking and the foot, it creeps out either at the sleeve or neck-band, travelling over the whole body. If the bearded oat, after harvest, be left with the other grain in the barn, it extricates itself from the glume; nor does it stop in its progress till it gets to the walls of the building. "Hence, says Linnæus, the dalecarlian, after he has cut and carried it into the barn, in a few days finds all the glumes empty, and the oats separate from them, for every oat has a spiral beard annexed to it, which is contracted in wet, and extended in dry weather. When the spiral is contracted it drags the oat along with it; the minute hairs of the beard pointing downward, the grain necessarily follows them, but when the beard expands again, the oat does not go back to its former place, the roughness of the beard the contrary way preventing its return. If you take the seeds of fern, these being laid upon a paper, and viewed with a microscope, will be seen to leap over any obstacle as if they had feet; by which they are separated and dispersed one from another, so that a person ignorant of this property would pronounce these seeds to be so many mites or small insects."

The process of nature in the vegetation of plants is very accurately delivered by Malpighi. "The egg or seed of the plant being excluded out of the ovary, called pod or husk, and requiring further fostering, or brooding, is committed to the earth; which, having received it into her fertile bosom, not only does the office of incubation by her own warm vapours and exhalations, joined with the heat of the sun, but by degrees supplies what the seed requires for its further growth; as abounding every where with canals, wherein the dew and rain-water, impregnated with fertile salts, glide like the chyle and blood in the arteries, &c. of animals. This moisture meeting with a new deposited seed, is strained through the pores or pipes of the outer rind of them, on the inside whereof lies one or more, commonly two thick seminal leaves. These seed-leaves consist of a great number of little bladders. In these vessels is received the moisture of the earth strained through the rind or seed, which makes a slight fermentation with the proper juice before contained therein. This fermented liquor is conveyed by the umbilical vessel to the trunk of the little plant; and to the germ or bud which is contiguous thereto, upon which a vegetation or increase of the parts succeed."

Such is the procedure of nature in the vegetation of plants; which the illustrious author exemplifies in a grain of wheat, as follows: "The first day the grain is sown it grows a little turgid, and the husk gapes a little in several places, and the body of the plant being continued by the umbilical vessel to a conglobated leaf, (which is called the pulp or flesh of the seed, and is what constitutes the flower) swells, by which means not only the germ or sprout which is to be the future stem, opens and waxes, but the roots begin to branch out, whence the seed leaf, becoming loose, gapes. The second, the secundine or husk, being broken through, the stem or top of the future straw, appears on the outside thereof, and grows upward by degrees, in the mean time the seed leaf guarding the roots, becomes turgid with its vessels, and puts forth a white down;

and the leaf being pulled away, you see the roots of the plants bare, the future buds, leaves, and rest of the stalk lying hid. Between the roots, and the ascending stem, the trunk of the plant is knit by the navel knot to the flower-leaf, which is very moist, though it still retains its white colour and its natural taste. The third day the pulp of the round leaf becomes turgid with the juice which it received from the earth fermenting with its own. Thus the plant increasing in bigness, and its bud or stem becoming taller, from whitish turns greenish, the side roots also break forth greenish and pyramidal from the gaping sheath, which adheres chiefly to the plant, and the lower root grows longer and hairy, with fibres hanging all along on all the roots, except on their tops, and these fibres are seen to wind about the saline particles of the soil, little lumps of earth, &c. like ivy, whence they grow curled. Above the roots there now break out two other little ones. The fourth day, the stem mounting upwards, makes a right angle with the seminal leaf, the last roots put forth more, and the other three growing larger, are cloathed with more hairs, which straitly embrace the lumps of earth; and where they meet with any vacuity, unite into a kind of net-work. From this time forward the root pushes with more regularity downwards, and the stalk upward, than before. There is, however, this great difference in their growth, that the stalk and branches find no resistance to their shooting up, while the roots find a great deal to their shooting downwards, by means of the solidity of the earth; whence the branches advance much faster and further in their growth than the roots; and these often finding the resistance of a tough earth insurmountable, turn their course, and shoot almost horizontally."

"The fluids or juices of vegetables, says Dr. Bell, are of two kinds: The one is of the same nature in all the variety of vegetables: the other varies according to the different plants in which it exists. The former, which is called the common juice, when collected early in the spring, from an incision made in the birch or vine, differs little from common water. The latter, which is named the proper juice, possesses various properties in various plants, and gives to each its sensible qualities. These two juices never mingle with each other in the tree, and the latter is found in the vasa propria only."

It is not yet ascertained whether the juices of plants are transmitted through vessels, or cellular substance. Each side of the question has had its advocates, who have supported their respective opinions with probable arguments: but it is to be regretted that, on so interesting a subject, no conclusion can be formed from the actual dissection of vegetables. It, however, seems most probable that all the fluids of plants are transmitted through vessels.

Plants, as well as animals, says a respectable author, perspire, and in both cases this function is essential to health. By the experiments of Dr. Hales, and M. Guettard, it appears that the perspirable matter of vegetables differs in no respect from pure water, excepting that it becomes rather sooner putrid. The quantity perspired varies, according to the extent of the surface from which it is emitted, the temperature of the air, the time of the day, and the humidity of the atmosphere. As the leaves form the greatest part of the surface, it is natural to suppose, that the quantity of these will very materially affect the quantity of the perspiration. Accordingly, the experiments of Dr. Hales

have ascertained, that the perspiration of vegetables is increased or diminished, chiefly, in proportion to the increase or diminution of their foliage. The degree of heat in which the plant was kept, according to the same author, varied the quantity of matter perspired; this being greater, in proportion to the greater heat of the surrounding atmosphere. The degree of light has likewise considerable influence in this respect; for Mr. Philip Miller's experiments prove, that plants uniformly perspire most in the forenoon, though the temperature of the air, in which they are placed, should be unvaried M. Guettard likewise informs us, that a plant, exposed to the rays of the sun, has its perspiration increased to a much greater degree, than if it had been exposed to the same heat, under the shade. Finally, the perspiration of vegetables is increased in proportion as the atmosphere is dry, or, in other words, diminished in proportion as the atmosphere is humid.

"Some botanists, observes Dr. Bell, have conceived, that plants, as well as animals, have a regular circulation of their fluids. Others think this very improbable. On both sides, recourse has been had to experiments; and from these, conclusions perfectly opposite have been deduced. When a ligature has been fixed round a tree, in such a manner that no juice could be transmitted through the bark, the tree has been found to thicken above the ligature; but below it, to continue of the same circumference. Hence some have concluded, that the sap ascends through the wood, and descends through the bark. Those who are of a contrary opinion have found, that, in certain cases, the juice ascends through the bark only: for when a portion of the wood has been cut out, and the bark exactly replaced, the growth of the tree has been found to go on unchanged: hence it is said, that the juice is transmitted equally through all parts of vegetables. The experiments adduced on each side of the question are just, but the reasonings on these, by each party, seem equally inconclusive. The analogy of animal nature appears to favour the opinion, that the juice rises through the wood only, and descends only through the bark; but this analogy is not complete throughout. The arteries are not placed in the internal parts alone, nor the veins in the external, but they accompany each other through every part of their distribution. In vegetables the sap rises from the roots, but the proper juice descends towards them; in the descent of the juice, the wood acquires its growth, and absorbtion is a constant action of the leaves. These observations render it probable that there is a circulation of the juices; and if there is, the vessels which perform it, we may reasonably believe, accompany each other through every part of their course."

The experiments of Dr. Priestley have sufficiently shewn that vegetables have the power of correcting bad air; and Dr. Ingehouz has proved that they have the faculty of producing vital air only when acted on by the rays of light. If a vegetable is immersed in water, and the rays of the sun directed on it, air-bubbles will be observed to collect on the leaves, and at length rise to the surface of the water. The green matter which is to be observed in water is, doubtless, a vegetable production. Water containing this green matter always afforded vital air in a large quantity, but water which had it not afforded none. It is impossible, says Dr. Priestley, not to observe the ad-

mirable provision of nature. To prevent or lessen the fatal effects of putrefaction, especially in hot countries, where the rays of the sun are most direct, and the heat most intense. Animal and vegetable substances, by simple putrefying, would necessarily taint great masses of air, and render it unfit for respiration, did not the same substances, putrefying in water, supply a most abundant pabulum for this wonderful vegetable substance, the seeds of which seem to exist throughout the atmosphere. By these means, instead of the atmosphere being corrupted, a large quantity of the purest air is continually thrown into it. By the same means also, stagnant waters are rendered much less offensive and unwholesome than they would otherwise be. That froth which we observe on the surface of such waters, and which is apt to excite disgust, generally consists of the purest vital air, supplied by aquatic plants. When the sun shines, this air may be observed to issue from them. Even when animal and vegetable substances putrefy in air, as they have generally some moisture in them, various other vegetable productions, in the form of mold, &c. find a proper nutriment in them, and by converting a considerable part of the noxious effluvia into their own substance, arrest it in its progress to corrupt the atmosphere. The same vegetables which afford vital air very plentifully in the light of the sun, afford in the shade air less pure than that of the atmosphere. This striking effect of light on vegetables is a strong argument in favour of the opinion, that the motion of the juices of vegetables is performed by vessels which, like those of animals, possess irritability, and are excited to action by stimulating substances. Plants have a remarkable sensibility to light; they unfold their flowers to the sun, they follow his course by turning on their stems, and are closed as soon as he disappears. Vegetables placed in rooms where they receive light only in one direction, always extend themselves that way. If they receive light in two directions, they direct their course towards the strongest. Trees growing in thick forests, where they only receive light from above, direct their shoots almost invariably upwards, and therefore become much taller and less spreading than such as stand single. This affection for light seems to explain the upright growth of vegetables, a curious phenomenon, too common to be much attended to. It has been ascertained, by repeated experiments, that the green colour of plants is entirely owing to light; for plants reared in the dark are well known to be perfectly white. The nourishment of vegetables, as it is so intimately connected with the important science of agriculture, has deservedly attracted considerable attention. Mr. Boyle dried in an oven a quantity of earth proper for vegetation, and after carefully weighing it, planted in it the seed of a gourd; he watered it with pure rain-water, and it produced a plant, which weighed 14 pounds, though the earth had suffered no sensible diminution.

A willow-tree was planted by Van Helmont, in a pot, containing 100 pounds of earth. This was in general watered with distilled water, or sometimes with rain-water, which appeared perfectly pure. The vessel containing the plant was covered in such a manner as totally to exclude the entrançe of all solid matter. At the end of five years, upon taking out the plant, he found it to have increased in weight not less than 119 pounds, though the earth had lost only two ounces of its original weight. These experi-

ments would admit of some doubt, and must have remained in a great measure inexplicable, but for the experiments of Mr. Cavendish, and the facts related by Dr. Priestley, which place it beyond a doubt, that vegetables have a power of decomposing water, and converting it, with what they derive from the atmosphere, into almost all the different matters found to exist in their substance. All the proper juices of vegetables depend on the organization, as is evident from the operation of grafting. From the materials of simple water and air, are produced those wonderful diversities of peculiar juices and fruits, which the vegetable world affords: and the immense variety of tastes, smells, &c. In the same vegetable what a variety is found! The bark is different in taste from the wood, the peculiar juices have something different from them both, and the pith of some plants affords a matter which could not have been expected from their exterior qualities. The root is often different from the stem, and the fruit from both, in all their sensible qualities. When we attempt to discover the component principles of the objects around us, and the sources from whence they are supported, we are lost in the greatness and diversity of the scenes presented to us. We see animals nourished by vegetables, vegetables apparently by the remains of animals, and fossils composed of the relics of both these kingdoms. It seems certain, however, that vegetables preceded animals. A seed of moss lodging in a crevice of a bare rock is nourished by the atmosphere, and the moisture afforded by the rains and dews. It comes to perfection, and sheds its seeds in the mouldering remains of its own substance. Its offspring do the same, till a crust of vegetable mould is formed sufficiently thick for the support of grass and other vegetables of the same growth. The same process going forward, shrubs, and lastly, the largest trees, may find a firm support on the once barren rock and brave the efforts of the tempest. There are certain compound substances, which are formed by the process of vegetation, and may be obtained without the application of any greater heat than that of boiling water, or the action of any other solvents, than water and ardent spirit. These substances may be referred to the following heads: 1. Gum. 2. Sugar. 3. Fat oils. 4. Essential oils. 5. Balsams. 6. Camphor. 7. Resin. 8. Pure fecula of vegetables. 9. Farina. 10. Vegetable colouring matters.

I. Gum. Its characters, when in its purest state, are those of a substance inodorous, insipid, generally solid, of more or less transparency, with sometimes a slight tinge of colour, generally yellow; easily soluble in water into a viscid liquor, called mucilage, in which state it originally existed in the vegetable; not acted on by spirit of wine or oils; not volatile in the heat of boiling water, nor fusible in any heat, but subject to the same changes as other vegetable matter. Gum is very abundant in the vegetable kingdom; it is found in a great number of roots; the young shoots, and young leaves contain it in large quantities, and its presence may be known by its viscous and adhesive quality, when these parts are crushed between the fingers. Gum is usually obtained by wounding the bark of particular trees. It is observable that saccharine fruits, when sour and unripe, are found to contain gum and an acid: whence it seems not unfair to conclude, that saccharine matter is formed of these materials, operated on by the process of vegetation.

II. Sugar. The mixed and various properties of this substance have rendered chemists very doubtful to what class of bodies it ought to be referred. By some it has been called inflammable, by others saline, and by others it has been classed among gummy and mucilaginous matters. Sugar is soluble, both in water and ardent spirit. It is more inflammable than gum, and has not been proved to contain any salt ready formed, except some fixed alkali. It is the only principle the presence of which enables fluids to take on the viscous fermentation. Saccharine matter is found in a great number of vegetables; such as the maple, the birch, the red-beet, the parsnip, the grape, farinaceous grain, potatoes. Margraff, indeed, extracted it from most vegetables; and it is well known that honey is a saccharine matter, collected, by the instinct of the bee, from an infinite variety of plants, but principally from flowers. The arundo seccharifera or sugar-cane, contains this matter, however in larger quantities, and affords it more readily than any other plant.

III. Fat oils are not emitted from the surface of vegetables, but are obtained by pressure from their emulsive seeds or kernels. They feel smooth to the touch, are generally, when recent, without smell or taste, and are insoluble in water. They are not volatilized but by a heat considerably superior to that of boiling water, and do not take fire till sufficiently heated to be volatilized. When they are burned on the wick of a lamp, small portions are successfully brought to its extremity, and being there volatilized, undergo inflammation. Most fat oils are fluid, and require a considerable degree of cold to congeal them; others become solid by a very slight degree of cold; and others again are almost always solid; these last are called butters. Such are those of the cacao-nut, from which chocolate is made, and also of the cocoa-nut. Vegetable wax is of the same nature, only more solid.

IV Essential oils are remarkable for a strong aromatic smell, and are sufficiently volatile to rise with the heat of boiling water. They are in general soluble in spirits of wine, and their taste is very acrid. They are much more inflammable than the fat oils. Essential or volatile oils exist in most fragrant vegetables, and in various plants are found in different parts, thus the oil of cinnamon is found in the bark; of balm, peppermint, and wormwood, in the leaves; of the rose and lavender, in the flower; of nutmegs, anise, and fennel, in the seeds. They are obtained either by expression, as from the peel of oranges and lemons, or by distillation with water. The perfume, or principle of scent, in plants, to which Boerhave gave the name of spiritus rector, seems in general to reside in the essential oil, it composes an extremely small part of the weight of vegetables, as may be inferred from the loss of fragrance sustained by essential oils, with little or no loss of weight. It does not seem improbable that the perfume, or principle of scent, in plants, is a gas of a peculiar nature. Its invisibility and volatility, the manner in which it is expanded and dispersed in the atmosphere, together with certain experiments made by Dr. Ingenhouz, on the noxious gas afforded by flowers, render this opinion very probable.

V. The proper vegetable Balms are oily aromatic substances, imperfectly fluid, obtained by incisions made in certain trees. The word balsam has been used in a very

extensive sense, to denote a variety of vegetable substances, which agree in consistence, though differing very widely in their nature and properties. This denomination, however, is more properly confined to such resinous matters as possess a fragrant smell, and more especially contain acid, odorant, and concrete salts, which may be extracted by decoction or sublimation; such as benzoin, balsam of Tolu, and storax.

VI. CAMPHOR is a peculiar vegetable substance, of a strong smell and taste, which resembles essential oils in some of its properties, and differs from them in others. It is much more volatile than the essential oils; with the most gentle heat it sublimes and crystalizes in hexagonal laminæ attached to a middle stem. By a sudden heat it melts before it rises. Camphor has been obtained in small quantities from the root of zedsary, thyme, rosemary, sage, aneomony, and other vegetables, by distillation. It is observable that all these plants afford a much larger quantity of camphor when the sap has been suffered to pass to the concrete state by several months drying. Thyme and peppermint, slowly dryed, afford much camphor; the camphor of commerce is obtained from a species of laurel which grows in China, Japan, and in the islands of Borneo, Samatra, Ceylon, &c.

VIII. RESINS are dried juices of plants, or the nature of essential oils. Almost all the concrete juices, distinguished by the name of resins, are soluble in ardent spirit, and not in water, whereas gums are soluble in water, and not in spirit. They usually flow from wounds made in the trunks of trees, purposely to obtain them. They are inflammable, and burn with much smoke. In closed vessels they do not rise wholly by heat, but are decomposed. Resins differ from balsams in their smell, which is less agreeable, and especially in their containing no concrete acid salt.

VII. PURE FECULA of VEGETABLES. If the substance of a vegetable is reduced to a pulp by pounding, this pulp, by strong pressure, affords a turbid white or coloured fluid, which, by standing, deposits a substance, more or less fibrous or pulverulent, according to the nature of the vegetable substance from which it was obtained. This is called the fecula of vegetables, and consists almost entirely of starch. Some parts of vegetables appear to be altogether composed of this matter; such as the seeds of the graminoous and leguminous plants, turberous roots, &c.

IX. FARINA. Flour, or the pulverized substance of farinaceous seeds, has a strong analogy with the gummy and saccharine mucilages. Farinaceous seeds, if kept in a moderate temperature, and supplied with moisture, are, by the incipient process of vegetation, converted, in a great measure, into saccharine mucilages, as happens in making malt. Wheat-flour is the most perfect farina with which we are acquainted. A great number of vegetable colouring matters, which are of an extractive or saponaceous nature, are readily dissolved in water. The colouring principles of many other substances resides in a purely resinous matter, insoluble in water, and in some instances attached to matters insoluble even in spirit of wine; but they are all acted on by alkalies, which convert them into a kind of soaps, miscible with water. The principal colours of this nature are the annatto, a kind of fecula, obtained by maceration of the seeds of the urucu putrefied in water, and which dyes an orange yellow colour; the flower of earth

amus or bastard saffron, which affords a very fine red; archill, which is a paste prepared with mosses, macerated in urine with lime, and which dyes red. The colour of indigo also resides in a resinous matter.

Having considered the structure and composition of vegetable substances, it becomes necessary to direct our attention to certain spontaneous changes which they undergo, when deprived of the vital principle. These changes are called fermentations, which are three in number, and are termed, from their products, the vinous or spirituous, the acetous, and the putrid, the circumstances universally necessary to fermentation, are moisture, a certain degree of heat, and the contact of air. The three kinds of fermentation are sometimes considered as different stages of one process; this, however, is an improper view of the subject, as each kind of fermentation is a peculiar process, and totally different from every other. Some bodies become acid without having undergone the spirituous fermentation, and others putrefy without shewing any disposition to assume either that or the acetous state.

The conditions necessary for the production of the VINOUS, or spirituous fermentation, are,

1. A degree of fluidity slightly viscid.

2. The presence of saccharine mucilage.

3. A proper temperature, which varies from forty-eight to eighty of Fahrenheit's thermometer,

4. The addition of a quantity of the substance called yeast, which is itself the product of the vinous fermentation, is of great assistance in exciting it.

The phenomena presented in liquor during the spirituous fermentation are, First, a muddiness, from the separation of an aerial matter, which rises in bubbles, to the top, in such quantity and in such quick succession, as to produce a hissing noise, and form a froth. These minute globules of air occasion the motion of the particles of the fluid among one another; and this motion is perceptible, even before the air is visibly separated. The globules of air attach themselves to the particles of the mixture, and buoy them up; at length the globule is detached, and the atom sinks by its own weight. The nature of the air which is disengaged was not understood till the modern experiments on æriform fluids afforded so much assistance to chemical science. It is now ascertained to be the carbonic acid gas, or fixed air, which, being heavier than atmospheric air, forms a stratum in the upper part of the vessel in which the fluid is fermenting, where it may be perceived from its greater density. This air, contained in the fermenting vats of brew-houses, frequently produces the most fatal effects on the workmen; and a candle dipped into it is as certainly extinguished as if plunged into water. During the time that the fermentation is going on, the bulk of the liquid is augmented. Another phenomenon is the production of a gentle heat, equal to about 72 of Fahrenheit's thermometer. After some days, the number of which varies according to the dilution of the substance, and the degree of heat, the motion in the fluid diminishes, the warmth abates, and the emission of air is lessened; the liquor becomes clear, and the scum which consists of the more solid particles and air, becomes heavier in proportion as the

air escapes, and at last sinks. The liquor has now undergone a great change; it has acquired a pungent and pleasant taste and smell, and an inebriating quality, and has lost its sweetness. If the liquor is now distilled, instead of an insipid matter, we obtain an ardent spirit, and a sour, gross fluid remains behind.

The Acetous fermentation is still more simple than the spirituous, and consists merely in the absorption of the vital or oxygenous part of the atmosphere, by which vinous fluids are converted into vinegar; whence it appears that it is the proportion of oxygen alone which constitutes the vast difference which exists between ardent spirit and vinegar. That wine is converted into vinegar, by the addition of oxygen, is proved, as well from the general analogy of the formation of other acids, as by the following direct experiments. In the first place, we cannot change wine into vinegar without exposing the former to the contact of air containing oxygen, or employing some other mode of oxygenation: secondly, this process is accompanied by a diminution of the volume of the air in which it is carried on, from the absorption of oxygen; and thirdly, wine, by being converted into vinegar, is increased in weight.

The Putrid fermentation is the destruction of the equilibrium which holds the constituent principles of bodies in a state of combination. Thus a vegetable substance, which, when entire, consists of a triple combinatian of hydrogen, oxygen, and carbon, is resolved by putrefaction into hydrogen gas, and carbonic acid gas, which consists of oxygen and carbon. As there is not enough of oxygen to convert all the carbon into carbonic acid gas, a quantity of the charcoal remains behind, mixed with the earthy and saline matter contained in the vegetable. Thus putrefaction, in a vegetable substance, is nothing more than a complete analysis of it, in which the constituent elements are disengaged in the form of gas, except the earth, and a quantity of charcoal which remains in the state of mould. Such is the result of putrefaction when the substances submitted to it contain only oxygen, hydrogen, charcoal, and a little earth. But this case is rare; and these substances putrefy imperfectly and with difficulty. It is otherwise with substances containing azote, which indeed exists in all animal matters, and in a considerable number of vegetables. The putrid fermentation of animal substances is commonly called putrefaction, and this is well known to take place in them, after they are deprived of life. The circumstances which favour putrefaction are the same as those which promote the spirituous and acetous fermentations, viz. humidity, the admission of air, and a due degree of heat. "There is, perhaps, says Dr. Gregory, no process of nature better understood than that of fermentation, and yet there is not any more calculated to excite our astonishment; there is not any instance within my recollection so striking, of the surprising change which combination produces in bodies; and it is the more wonderful, when we consider, that different proportions of the same ingredients produce fluids essentially distinct in all their leading characters. He that "made a weight for the winds, and weigheth the water by measure;" how excellently has he ordered all things for the benefit of his creatures! "The undevout astronomer is mad," is the strong expression of a sublime writer; yet, if the wisdom and providence of God

be evident in those immense bodies, of the structure of which we are in a great measure ignorant, surely it is much more so in these minute operations, which are the immediate objects of our senses, where every thing is plainly the effect of intelligence and design; and however ignorant and superficial observers may wander from the path of truth, the naturalist at least can never be an atheist.

CHAPTER VII.

ANIMATED NATURE.——*Animals, their sensation, affections, and instinct—Mammalia—Cetaceous animals—Birds.*

AN animal has been defined to be an organized and living body, which is also endowed with sensation. Some philosophers affirm that this property of sensation alone can be deemed the characteristic of an animal, and that by this the animal and vegetable kingdoms are so essentially separated, that we cannot even imagine the least approximation of the one to the other. M. Buffon, however, denies that sensation affords much precise distinction. "Sensation, says he, more essentially distinguishes animals from vegetables, but sensation is a complex idea, and requires some explication; for if sensation implied no more than motion consequent upon a stroke or an impulse, the sensitive plant enjoys this power. But if by sensation we mean the faculty of perceiving and comparing ideas, it is uncertain whether brute animals be endowed with it. If it should be allowed to dogs, elephants, &c. whose actions seem to proceed from motives similar to those by which men are actuated, it must be denied to many species of animals, particularly to those which appear not to possess the faculty of progressive motion. If the sensation of an oyster, for example, differed only in degree from that of a dog, why do we not ascribe the same sensation to vegetables, though in a degree still inferior? This distinction, therefore, between the animal and vegetable, is neither sufficiently general, nor determined."

Some philosophers, far from being convinced by these observations of Buffon, have appealed to the principle of self-preservation as a characteristic of such beings as are endowed with sensation. "There is no animal, say they, which makes any motion in consequence of external impulse when danger is threatened, but what puts itself into a posture of defence. But no vegetable whatever does so. A muscle, when it is touched, immediately shuts its shell, and as this action puts it in a state of defence, we conclude that it proceeded from the principle of self-preservation. When the sensitive plant contracts from a touch, it is no more in a state of defence than before, for whatever would have destroyed it in its expanded state, will also do it in its contracted state. We conclude, therefore, that the motion of the sensitive plant proceeds only from a certain property, called by physicians irritability, and which, though our bodies possess it in an eminent degree, is a characteristic neither of animal nor vegetable life, but belongs to us in common with brute matter. It is certain that an electrified silk thread shews a much greater variety of motions than any sensitive plant. If a bit of silk thread is dropt on an electrified metal plate, it immediately erects itself, spreads out the small fibres like arms, and if not detained, will fly off. If a finger is brought near it, the thread seems greedily to catch at it. If a candle approaches it, it claps close to the

plate as if afraid of it, why do we not conclude that the thread in this case is really afraid of the candle? For this plain reason, that its seeming flight is not to get away from the candle, but to get toward the electrified metal, and if allowed to remain there, will suffer itself to be burnt without offering to stir. The sensitive plant, in like manner, after it has contracted, will suffer itself to be cut in pieces without making the least effort to escape. The case is not so with the meanest animal. An hedge-hog, when alarmed, draws its body together, and expands its prickles, thereby putting itself in a posture of defence. Throw it into water, and the same principle of self-preservation prompts it to expand its body and swim. A snail, when touched, withdraws itself into its shell, but if a little quick-lime is sprinkled upon it, so that its shell is no longer a place of safety, it is thrown into agonies, and endeavours to avail itself of its locomotive power, in order to escape the danger. But there is no need of arguments drawn from the inferior creation. We ourselves are possessed both of the animal and vegetable life, and certainly must know whether there is any connection between vegetation and sensation or not. We are conscious that we exist; that we hear, see, &c. but of vegetation we are absolutely inconscious. We feel a pleasure, for instance, in gratifying the calls of hunger and thirst; but of the process by which our aliment is formed into chyle, the chyle mixed with the blood, the circulation of that blood, and the separation of all the humours from it, we are altogether ignorant. If we then, who are more perfect than other vegetables, are utterly insensible of our own vegetable life, why should we imagine that the less perfect vegetables are sensible of it?"

" Plants, says Lord Kaimes, when forced from their natural position, are endowed with a power to restore themselves. A hop-plant, twisting round a stick, directs its course from south to west, as the sun does; untwist it, and tie it in the opposite direction it dies. Leave it loose in the wrong direction, it recovers its natural direction in a single night. Twist a branch of a tree so as to invert its leaves, and fix it in that position: if left in any degree loose it untwists itself gradually till the leaves be restored to their natural position, what better can an animal do for its welfare? A root of a tree meeting a ditch in its progress is laid open to the air. What follows? It alters its course like a rational being, dips into the ground, surrounds the ditch, rises on the opposite side to its wonted distances from the surface, and then proceeds in its original direction. Lay a wet sponge near a root laid open to the air; the root will direct its course to the sponge. Change the place of the sponge; the root varies in its direction. Thrust a pole into the ground at a moderate distance from a scandent plant, the plant directs its course to it. A honey-suckle proceeds in its course till it be too long for supporting its weight; and then strengthens itself by shooting into a spiral. If it meets with another plant of the same kind, they coalesce for mutual support, the one screwing to the right, the other to the left. If a honey-suckle twig meets with a dead branch, it screws from the right to the left. The claspers of briony shoot into a spiral, and lay hold of whatever comes in their way for support. If, after completing a spiral of three rounds, they meet with nothing, they try again by altering their course."

To these, and many other instances of apparent sagacity in vegetables, has been con-

trasted an equally wonderful circumstance, observed in the recovery of wounded persons.

When a loss of substance is to be repaired, the fibres not only arrange themselves as if they were animated, but do this in a way which indicates a degree of wisdom far superior to any of which human beings are possessed, and yet this is done without our being conscious how it is done, or that it is done at all. Here then, it is alledged, we have in ourselves a demonstration that vegetable life acts without knowing what it does; and if vegetables are ignorant of their most sagacious actions, why should we suspect that they have sensation, let it be ever so obscure, of any of their inferior ones, such as contracting from a touch, turning towards the sun, or advancing to meet a pole.

To describe the nature of the faculties of brutes, and mark precisely how far their intelligence extends, would be a very pleasing, and not unprofitable employment; but we are not able to offer any thing like a system on this subject. We can only throw together a few observations, and relate some interesting anecdotes, by which they are supported. Brutes not only experience hunger and thirst, and other appetites, but are possessed of certain feelings, which may be properly called affections. Envy is visible in a dog, cruelty in a cat, and in monkeys an universal propensity to mischief. The least attentive inspection of the manners of brutes is sufficient to convince us that they destroy each other, not merely from hunger, but from the most cruel aversion. From these malevolent dispositions Father Bougeant concludes that they are animated by fallen angels. Had this Jesuit considered the creation with a more impartial eye, he might have seen, however, in the inferior animals the most striking instances of maternal affection, of gratitude and fidelity towards the human species, and even of sincere and permanent friendship between animals the most dissimilar in their kinds. As to the natural affection of brutes, says an ingenious writer, "The more I reflect on it the more I am astonished at its effects: nor is the violence of this affection more wonderful than the shortness of its duration. Thus every hen is in her turn the virago of the yard in proportion to the helplessness of her brood; and will fly in the face of dog, or a sow, in defence of those chickens which in a few weeks she will drive before her with relentless cruelty. This affection sublimes the passions, quickens the invention, and sharpens the sagacity of the brute creation. Thus an hen just becomé a mother, is no longer that placid bird she used to be, but with feathers standing on end, wings hovering, and clacking note, she runs about like one possessed. Dams will throw themselves in the way of the greatest dangers, in order to avert it from their progency. Thus a partridge will tumble along before a sportsman in order to draw away the dogs from her helpless covey. In the time of nidification the most feeble birds will assault the most rapacious. All the hirundines of a village are up in arms at the sight of an hawk, whom they will persecute till he leaves that district. A very exact observer has often remarked, that a pair of ravens nestling in the rock of Gibralter, would suffer no vulture or eagle to rest near this station, but would drive them from the hill with an amazing fury: even the blue thrush, at the season of breeding, would dart out from the clifts of the rocks to

chase away the kestril or the sparrow-hawk. If you stand near the nest of a bird that has young, she will not be induced to betray them by an inadvertent fondness, but will wait about at a distance with meat in her mouth for an hour together. The fly-catcher builds every year in the vines that grow on the walls of my house. A pair of these little birds had one year inadvertently placed their nests on a naked bough, perhaps in a shady time, not being aware of the inconvenience that followed, but an hot sunny season coming on before the brood was half fledged, the reflection of the wall became insupportable, and must inevitably have destroyed the tender young, had not affection suggested an expedient, and prompted the parent birds to hover over the nests all the hotter hours, while, with wings expanded, and mouth gaping for breath, they screened off the heat from their suffering offspring. Further, I once saw in a willow a wren, which had built in a bank in my fields. This bird a friend and myself had observed as she sat in her nest, but were particularly careful not to disturb her, though we saw she eyed us with some degree of jealousy. Some days after we passed that way, and were desirous of remarking how this brood went on, but no nest could be found, till I happened to take up a large bundle of long green moss, as it were, carelessly thrown over the nest in order to dodge the eye of an impertinent intruder."

A wonderful spirit of sociality in the brute creation, independent of several attachments," has been frequently remarked. Many horses though quiet with company will not stay one minute in a field by themselves ; the strongest fences cannot restrain them. A horse has been known to leap out of a stable window through which dung was thrown, after company, and yet, in other respects, to be remarkably quiet. Oxen and cows will not fatten by themselves ; but will neglect the finest pasture that is not recommended by society. It would be needless to instance in sheep, which constantly flock together. But this propensity seems not to be confined to animals of the same species. In the work last quoted, we are told of a doe, still alive, that was brought up from a little fawn with a dairy of cows ; with them it goes to field, and with them it returns to the yard. The dogs of the house take no notice of this deer, being used to her ; but if a strange dog comes by, a chase ensues ; while the master smiles to see his favourite securely leading her pursuers over hedge, or gate, or stile, till she return to the cows, who, with fierce lowing, and menacing horns, drive the assailant quite out of the pasture.

So many instances of the attachment of animals to their masters are known to every one, that it might appear superfluous to recite any, we will, however, relate one which is of unquestionable authority, and while it illustrates the subject we are discussing, has, at the same time, a tendency to excite our gratitude to the great Father of the universe. At the seat of the late Earl of Litchfield, three miles from Blenheim, there is a portrait in the dining-room of Sir Henry Lee, by Johnston, with that of a mastiff dog, which saved his life. It seems a servant had formed a design of assassinating his master, and robbing his house ; but the night he had fixed on, the dog, which had never been much noticed by Sir Henry, for the first time followed him up stairs, got under his bed, and could not be got thence by master or man ; in the dead of the night the same servant en-

tered the room to execute his horrid design ; but was instantly seized by the dog, and being secured, confessed his intentions. There are ten quaint lines in one corner of the picture, which conclude thus,

But in my dog, whereof I made no store,
More love I found than those I trusted more.

Some of these anecdotes afford the most evident proof that brutes are possessed of memory, recollection, and even reason, in a certain degree, beyond which, however, they have never been able to pass. One remarkable instance of this is in the use of the element of fire. The most savage nations have known how to make this element subservient to their purposes ; or if some have been found who have been entirely ignorant of its existence, they have quickly learned its uses by seeing it made use of by others ; but though many of the brute creatures are delighted with warmth, and have opportunities every day of seeing how fire is supplied with fuel, and by that means preserved, it never was known that any of them attempted to preserve a fire by this means. This shews a strange defect of rationality, unaccountable upon any other supposition than that the soul or thinking principle of brutes is somehow or other inferior in its nature to that of men ; but still it is a principle capable of perceptions as quick, and in many instances much more so than our own. While some of the actions of brutes prove that they are far inferior to men, others may be remarked which display wisdom surpassing any to which he can make pretensions. It has been usual to refer their action to two different causes, reason, and instinct. Whether both of these may in some cases operate together, it appears not very easy to determine. Actions performed with a view to accomplish a certain end, are called rational actions, and the end in view is the motive to their performance. Instinctive actions have a cause, viz. the internal impulse by which they are spontaneously performed, but they cannot be said to have a motive, because they are not done with any view to consequences. Can it, however, be affirmed with certainty, that all the actions which exhibit proofs of instinct are performed without the animals having any fore-knowledge of the purpose they are to answer ? We shall give one instance of the power of instinct, in the elegant and perspicuous language of Dr. Reid. " Every manufacturing art among men, says that able writer, was invented by some man, improved by others, and brought to perfection by time and experience ; men learn to work in it by long practice, which produces a habit. The arts of men vary in every age and nation, and are found only in those men who have been taught them. The manufactures of animals differ from those of men in many striking particulars ; no animal of the species can claim the invention, no animal ever introduced any new improvement, or any variation from the former practice ; every one of the species has equal skill from the beginning, without teaching, without experience, and without habit ; every one has its art by a kind of inspiration. I do not mean that it is inspired with the principles or rules of art, but with the ability of working in it to perfection, without any knowledge of its principle rules or end. The work of every animal is, indeed like the

works of nature, perfect in its kind, and can bear the most critical examination of the mechanic or the mathematician, of which a honey-comb is a very striking instance."

"Bees, it is well known, construct their combs with small cells on both sides, fit both for holding their store of honey, and for rearing their young. There are only three possible figures of the cells, which can make them all equal and similar, without any useless interstices. These are the *equilateral triangle*, the *square*, and the *regular hexagon*; of the three the hexagon is the most *proper both* for convenience and strength. Bees, as if they knew this, make their cells regular *hexagons*. As the combs have cells on both sides, the cells may either be exactly opposite, having partition against partition, or the bottom of a cell may rest upon the partitions between the cells on the other side, which will serve as a buttress to strengthen it. The last way is the best for strength; accordingly the bottom of each cell rests against the point where three partitions meet on the other side, which gives it all the strength possible. The bottom of the cell may either be one plane, perpendicular to the side of the partitions, or it may be composed of several planes meeting in a solid angle in the middle point. It is only in one of these two ways that all the cells can be similar without losing room. And for the same intention, the planes of which the bottom is composed, if there be more than one, must be three in number, and neither more nor fewer. If it has three planes meeting in a point, there is a saving of material and labour no way inconsiderable. The bees, as if acquainted with these principles of solid geometry, follow them most accurately; the bottom of each cell being composed of three planes, which make obtuse angles with the side partition, and with one another, and meet in a point in the middle of the bottom; the three angles of this bottom being supported by three partitions on the other side of the comb, and the point of the common intersection of these three partitions. One instance more of the mathematical skill displayed in the structure of an honey-comb, deserves to be mentioned. It is a curious mathematical problem, at what precise angle the three planes which compose the bottom of a cell ought to meet, in order to make the greatest saving of material and labour. This is one of those problems belonging to the higher parts of mathematics, which are called problems of maxima and minima. The celebrated M'Laurin resolved it by fluxionary calculation, which is to be found in the Transactions of the Royal Society of London, and determined precisely the angle required. Upon the most exact mensuration which the subject could admit, he afterwards found that it is the very angle in which the three planes in the bottom of the cell of a honey comb do actually meet."

"Shall we ask here, who taught the bees the properties of solids, and to resolve problems of maxima and minima? If a honey-comb were a work of human art, every man of common sense would conclude, without hesitation, that he who invented the construction must have understood the principles on which it was constructed. We need not say that bees know none of these things. They work like a child who, by turning the handle of an organ makes good music without any knowledge of music. The art is not in the child, but in him who made the organ. In like manner, when a bee makes its

combs so geometrically, the geometry is not in the bee, but in that Great Geometrician who made the bee, and made all things in number, weight, and measure.

Animals are distinguished into mammalia, or animals that give suck, birds, amphibious animals, fishes, insects, and worms. The characters of the first class are these ; the heart has two ventricles, and two auricles ; the blood is red and warm ; and the animals belonging to it are viviparous. This class is sub-divided into seven orders ; the characters of which are taken from the number, structure, and situation of the teeth. The primates have four incisores of fore teeth in each jaw, and one dog-tooth. N. B. By one dog-tooth Linnæus means one on each side of the fore-tooth in both jaws. This order includes four genera, man, the monkey, the macauco, and the bat. Of man it is intended to treat in the next chapter. Monkeys are a numerous race, but almost all confined to the torrid zone ; the face lively, agile, full of frolic, chatter, and grimace. From the structure of their members they have many actions in common with human kind. Most of them are fierce and untameable, some are of a milder nature, and will shew a degree of attachment, but in general they are endowed with mischievous intellects ; and are filthy, obscene, lascivious, and thieving. They inhabit the woods, and live on trees ; feeding on fruits, leaves, and insects. In general they go in vast companies ; but the different species never mix with each other, always keeping apart, and in different quarters. They leap with vast activity from tree to tree even when loaded with their young, which cling to them. They are the prey of leopards and others of the feline race ; and of serpents, which pursue them to the summit of the trees, and swallow them entire. They are not carnivorous, but, for mischief's sake, will rob the nest of birds of the eggs and young. In the countries where they most abound the sagacity of the feathered tribe is more marvellously shewn in their contrivances to fix the nest beyond the reach of these invaders. The macauco or maky, bears some resemblance to the monkey, but is not his equal in activity or propensity to mischief. Bats have a membrane attached to the feet and sides, by means of which they are enabled to fly. They are very voracious animals, and eagerly devour almost any food that comes in their way. The second order of mammalia are distinguished by the appellation of brutes; they have no fore-teeth in either jaw. This order includes seven genera, viz. the rhinoceros, the elephant, the walrus, the sloth, the ant-eater, the scaly lizard, and the armadillo. The rhinoceros is remarkable for a horn or horns on its nose ; the elephant for its proboscis and astonishing sagacity ; the walrus for its enormous tusks, which point downwards ; and the sloth for the difficulty and slowness of its motion. The ant-eaters are of different species, but have many properties in common with each other both in their structure and manners. They all feed upon ants, and plunge their tongues into honey and other liquid substances. They readily pick up crumbs of bread, or small morsels of flesh. They are easily tamed, and can subsist for a long time without food. They never swallow all the liquor which they take for drink ; for a part of it falls back through their nostrils. They run so slowly that a man may easily overtake them in an open field. Their flesh, though the taste be very disagreeable, is eaten by savages. The armadillo is armed with a hard bony shell, which is intersected by several belts or zones.

To the third order, that of feræ or wild beasts, belong ten genera or tribes, the seal, the dog, the cat, the weasel, the genus mustella, composed of weasel and otter, the bear, the opussum, the mole, the shrew-mouse, and the hedge-hog. The hind feet of the seal are rivetted so as to resemble a sheep's tail. They are amphibious, spending great part of their time in the sea, but occasionally visiting the shore In the dog tribe are reckoned the dog, the wolf, the hyæna, the mexicanus, the fox, the jackal, the mesomelas, the thous, and the zerda. The lion, the tyger, the panther, the ounce, the leopard, the jaguar, the ocelot, the hunting leopard, the black tyger, the puma, the margay, the tyger-cat, the cat, the manul, the lynx, the serval, the caracal, the cat of the mountain, are all classed together in the genus of cats. The weasel tribe consists of several species of that name, the ichneumon, the civet-cat, and various other small animals. The mustella tribe contains the different species of otter; some kinds of weasel, the polecat, the martin, the sable, the ferret, and the ermine. With the bear are classed the racoon, and the badger. The opussum has a pocket formed by a duplicature of the skin of the belly, in which the dugs are included. To this tribe belong the kangaroo. The name of glires or dormice has been given to the fourth order of mammalia. They are distinguished by having two fore-teeth in each jaw, and no dog-teeth. This order includes ten genera, the porcupine, the hare, the beaver, the mouse, the squirrel, the dormouse, the coney, the marmot, the jerboa, and the ashkoko. The porcupine kind are all of them covered with quills or prickles. The rabbit and the agatona are classed with the hare and the musk, the rat with the beaver, the beaver-rat, the rat, the hamster, and the mole-rat, with the mouse. The fifth order of mammalia are called pecora or cattle. These have no fore-teeth in the upper jaw, but six or eight in the lower. This order includes eight genera, the camel, the musk animal, the cameleopard, the deer, the goat, the sheep, and the ox. The camel, the dromedary, the lama, and pacas, form one order, are further distinguished by a division in their upper lip like that of a hare. The musk animals have also no horns, but two long tusks projecting out of their mouth. The cameleopard has straight, and the deer branched horns. The antelope agrees with the goat in the texture of the horns, and with the deer in the elegance of its form and great swiftness. The horns of the sheep are concave, turned backwards, and full of wrinkles, and it is further remarkable for its covering of wool. To the ox kind are referred the bison, and the buffalo. The sixth order are called belluæ or large beasts, and have obtuse fore-teeth in each jaw. To this order belong the horse, the hippopotamus, the tapir, and the hog. With the horse is classed the ass, the onager, and the zebra. The seventh order are the cete or whale kind; these have no uniform character in their teeth, being very different in their different genera; but are sufficiently distinguished from other orders of mammalia by living in the ocean, having pectoral fins, and a fistula or spiraculum upon the head. Nature on this tribe hath bestowed an internal structure in all respects agreeing with that of quadrupeds; and in a few others the external parts of both are similar. Cetaceous fishes, like land animals, breathe by means of lungs, being destitute of gills. This obliges them to rise frequently above the surface of the water to respire, to sleep, as well as to perform several other functions. They

have the power of uttering sounds, such as bellowing, and making other noises denied to genuine fish. Like land animals they have warm blood, bring forth and suckle their young, shewing a strong attachment to them. Their bodies, beneath the skin, are entirely surrounded with a thick layer of fat, (blubber) analogous to the lard on hogs. The number of their fins never exceed three, viz. two pectoral fins, and one back fin; but in some species the last is wanting. Their tails are placed horizontally, or flat, in respect to their bodies, contrary to the direction of all other fish, which have them in a perpendicular site. This situation of the tail enables them to force themselves suddenly to the surface of the water to breathe, which they are so frequently constrained to do. This order includes the sea unicorn, the whale, the fin-fish, and the dolphin.

The second class are called birds. The characters are the same with the first class, excepting that the animals belonging to it are oviparous. A bird is an animal covered with feathers; furnished with a bill; having two wings, and only two legs, with the faculty, except in a very few instances, of removing itself from place to place through the air. The bill is a hard horny substance, consisting of an upper and an under part, extending from the head, and answering to the mandibles in quadrupeds. In birds of prey the bill is hooked at the end, and fit for tearing; in crows straight and strong, for picking; in water-fowl either long and pointed for striking, or slender and blunt for searching the mire, or flat and broad for gobbling; its other uses are for building nests; feeding the young; climbing, as parrots; or lastly, is an instrument of defence or offence. Birds are destitute of external ears, having an orifice for the admission of sound. The neck is longer in birds than in any other animals; and longer in such as have long legs than in those that have short; either for gathering up their meat from the ground, or striking their prey in the water, except in web-footed fowl, who are by reversing their bodies, destined to search for food at the bottom of waters, as swans and the like birds, especially those that have a long neck, have the power of retracting, bending, or stretching it out, in order to change their centre of gravity from their legs to their wings. Their rump is furnished with two glands, secreting a fattish liquor from an orifice each has, which the birds express with their bills, to oil or anoint the discomposed parts of their feathers. These glands are particularly large in most web-footed water-fowl; but in the grebes, which want tails, they are smaller. The tail is the director or rudder of birds in their flight; they rise, sink, or turn by its means; for when the head points one way the tail inclines to the other side; it is, besides, an equilibrium or counterpoise to the other parts; the use is very evident in the kite and swallows. Feathers are designed for two uses; as covering from the inclemency of the weather, and instruments of motion through the air. They are placed in such a manner as to fall one over another so as to permit the wet to run off, and to exclude the cold. Most birds pair in the spring, fixing on a mate, and keeping constant till the care of incubation and educating their young brood is past. Birds that lose their mates early, associate with others; and birds that lose their first eggs will pair and lay again. The male, as well as the female, of several, join alternately in the trouble of incubation; and always in that of nutrition; when the young are hatched, both are busied in looking out for and bringing food to the

nestlings; and at that period, the mates of the melodious tribe, who before were perched on some sprig, and by their warbling alleviated the care of the females confined to the nest, now join in the common duty.

The great improvements in natural history which have taken place since the days of Linnæus, have obliged succeeding philosophers to forsake, in certain instances, the arrangement of birds of which he was the author. The system of Mr. Latham is esteemed one of the most complete; we shall therefore present a brief sketch of it to the view of the reader, interspersed with a few observations on the economy of the different orders or genera. Birds are, by that able naturalist, arranged in two divisions, land birds, and water birds. The first of these is sub-divided into six orders, first, rapacious; second, pies; third, passerine; fourth, columbine; fifth, gallinaceous; and sixth, strutheous. Under the general name of rapacious birds, are included the three genera, vultures, falcons and owls. Among the vultures are reckoned the condor and the sagitary; and among falcons, eagles, hawks, and buzzards. The nest of the larger rapacious birds are rude, made of sticks, but often lined with something soft; they generally build in high rocks, ruined towers, and desolate places. Enemies to the whole feathered creation, they seem suspicious of attacks, and seek solitude. A few build upon the ground. Rapacious birds lay but few eggs; eagles, and the larger kind, fewer than the lesser. The eggs of falcons and owls are rounder than those of most other birds, they lay more than six. The order of pies has twenty-seven genera: the shirke, or butcher-bird, the parrot, the toucan, the motmot, the hornbill, the beef-eater, the ani, the wattle-bird, the crow, the roller, the oriole, the grackle, the paradise-bird, the carucui, the barbet, the cuckoo, the wryneck, the woodpecker, the jacamar, the kingsfisher, the nuthatch, the tody, the bee-eater, the hoopoe, the creeper, the humming-bird. The bill in birds of the parrot genus is hooked from the base, the upper mandible is moveable; the nostrils are round, placed in the base of the bill, which in some species is furnished with a kind of naked skin, the tongue is broad, and blunt, at one end; the head is large, and the crown flat; the legs are short; the toes placed two before and two behind. It might seem a wonder why nature has destined to this, which is not naturally a bird of prey, but feeds on fruits and vegetable substances, the crooked beak allotted to the hawk and other carnivorous birds: but the reason seems to be that the parrot being a heavy bird, and its legs not very fit for service, it climbs up and down trees by the help of this sharp, and hooked bill, with which it lays hold of any thing, and secures itself before it stirs a foot; and besides this, it helps itself forward very much by pulling its body on with this hold. Of all animals the parrot and the crocodile are the only ones which move the upper jaw; all creatures else move the lower ones only. The grand characteristic of the woodpecker and wryneck is the tongue, the muscles necessary to the motion of which are singular, and worthy of notice, affording the animal means of darting it forward the whole length, and withdrawing it within the mouth at will. Of the kingsfisher tribe there are a great many species, with one or other of which almost every part of the world is furnished. Most of them frequent rivers, and live on fish, the singularity of catching which is admirable; sometimes hover-

ing over the water where a shoal of small fishes is seen playing near the surface; at other times waiting with attention, on some low branch hanging over the water, for the approach of a single one who is so unlucky as to swim that way: in either case dropping like a stone, or rather darting with rapidity on his prey; when seizing it crosswise in its bill it retires to a resting place to feast on it, which it does piecemeal, bones and all, without reserve, and afterwards brings up the indigestible parts in pellets, like birds of prey. The wings of the most part of the genus are very short, yet the bird flies rapidly, and with great strength. It may be remarked that throughout this genus blue, in different shades, is the predominant colour. With the crow are classed the raven, the jackdaw, the rook, the jay, and the magpie. Shrikes allied to the rapacious birds, build their nest in bushes, with moss, wool, &c. The order of pies are very irregular in the structure of their nests. Parrots, and in fact all birds with two toes backward, and two forward, lay their eggs in the hollow of trees. And most of this order creep along the bodies of trees, and lodge their eggs also within them. Crows build in trees among them. The nest of the magpie, composed of rude materials, is made with much art, quite covered with thorns, and only a hole left for admittance. The nests of the orioles are contrived with wonderful sagacity, and are hung at the end of some bough, or between the forks of extreme branches. In Europe only three birds have pensile nests, the common oriole, the parus pendulinus, or hang nest, and one more But in the torrid zone, where the birds fear the search of the titmouse, gliding serpent, and inquisitive monkey, the instances are very frequent; a marvellous instinct implanted in them for the preservation of the young. The order of pies vary greatly in their number of eggs. Parrots lay only two or three white eggs. Crows lay six eggs, greenish, mottled with dusky. Cuckoos, as far as we can learn, lay two. Woodpeckers, wrynecks, and kingsfishers lay eggs of a clear white, and semi-transparent colour. The woodpeckers lay six, the others more. The nuthatch lays often in the year, eight at a time, white, spotted with brown. The hoopoe lays but two cinerous eggs. The creeper lays a great number of eggs. The humming-bird most frequently builds in the middle of a branch of a tree, and the nest is so small that it cannot be seen by a person who stands on the ground: any one, therefore, desirous of seeing it must get up to the branch that he may view it from above: it is for this reason the nests are not frequently found. The nest is of course very small, and quite round: the outside, for the most part, is composed of green moss, common on old poles and trees; the inside of soft down, mostly collected from the leaves of the great mullein or the silk grass; but sometimes they vary the texture, making use of flax, hemp, hairs, and other soft materials: they lay two eggs of the size of a pea, which are white, and not bigger at one end than the other. The passerine, or sparrow order, contains the following 16 genera: the starling, the thrush, the chatterer, the coly, the grossbeak, the bunting, the tanager, the finch, the flycatcher, the lark, the wagtail, the warbler, the manakin, the titmouse, the swallow, and the goatsucker. The missel, the fieldfare, the redwing, the blackbird, and the ouzel, are classed with the thrush; the crossbill, the bowfinch, the bullfinch, and the greenfinch, with the grossbeak; the mountain-finch, the ortolan, the yellow hammer, the red

sparrow, with the bunting; the brambling, the sparrow, the linnet, the redpoles, the twite, and the canary-bird, with the finches; the nightingale, the hedge-sparrow, the redstart, the petty-chaps, the black-cap, the sedgebird, the red breast, the whinchat, and the wheat-ear, with the warbler; and both the martins and swifts, with the swallows, by the common name of hirundines. Most of the passerine order build their nests in shrubs or bushes, and some in holes of walls or banks. Some in the torrid zone are pensile from the boughs of high trees. Some of this order, such as larks, and the goat sucker, build on the ground. Some swallows make a curious plaister nest beneath the roofs of houses, and an Indian species, nests of a certain glutinous matter, which are collected as delicate ingredients for soups of Chinese epicures. All of this order lay from four to six eggs; except the titmouse and the wren, which lay fifteen or eighteen, and the goatsucker, which lays only two. The columbine order consists of only one genus, that of pigeons, but of these there are a great number of species. This race makes a most artless nest, a few sticks laid across may suffice. They lay but two white eggs, but the domestic kind breed almost every month.

The fifth order, the gallinaceous, or hen tribe, contains eleven genera: the peacock, the turkey, the pintado, the curasso, the pheasant, the tinamon, the grous, the partridge, the trumpeter, and the bustard. The dunghill cock and hen are classed with the pheasant, the wood-cock with the moor-hen, and the quail with the partridge. The gallinaceous order, the most useful of any to mankind, lays the most eggs, from eight to twenty, with exceptions to the bustard, a bird that hangs between the gallinaceous and the waders, which lays only two.

The sixth order, the struthious, or ostrich tribe, has four genera: the dodo, the African ostrich, the cassowary, and the American ostrich. Nature hath denied flight to this order, but still in running their short wings are of use, when erect, to collect the wind, and, like sails, to accelerate their motion. All of the gallinaceous and struthious lay their eggs on the ground. The ostrich is the only exception among birds of the want of natural affection, "Which leaveth her eggs in the earth, and warmeth them in the dust, and forgetteth that the foot may crush them, or the wild beasts may break them." The struthious order disagrees much in their number of eggs; the ostrich laying as many as forty or fifty, the dodo but one.

The water-fowls are divided into three orders, the waders, the birds with pinnated feet, and the web-footed. To the waders belong seventeen genera: the spoonbill, the screamer, the jabina, the boatbill, the umbre, the heron, the ibis, the curlew, the snipe, the sandpiper, the plover, the oyster-catcher, the cursorius, the rail, the jacana, the gallinule, and the sheathbill. With these are also classed the crane, the argill, the egrett, and the bittern, the lapwing, the ruff, and the stint. Many of the greater cloven-footed water-fowl have a slow and flagging flight; but most of the lesser fly swiftly, and most of them with extended legs, to compensate the shortness of their tails. Rails and gallinules fly with their legs hanging down. Most of the cloven-footed water fowl lay upon the ground; spoonbills, and the common heron build in trees, and make up large nests with sticks, &c. Storks build on churches, or the tops of houses. This order lays in

general four eggs; the crane and the Norfolk plover seldom more than two. All those of the snipe and plover genus are of a dirty white, or olive, spotted with black, and scarce to be distinguished in the holes they lay in. The bird called the land-rail lays from fifteen to twenty eggs. The birds with pinnated feet are of three genera: the phalarope, the coot, and the grebe. Coots and grebes with difficulty are forced from the water, but when they rise fly swiftly. Coots make a great nest near the water side. Of birds with pinnated feet, the coot lays seven or eight eggs, and sometimes more; grebes from four to eight, and those white. Of the web-footed fowls there are three genera, with long legs: the avoset, the courier, and the flamingo; and fourteen with short legs: the albatross, the auk, the guillemot, the diver, the skimmer, the tern, the gull, the petrel, the merganser, the duck, the penguin, the pelican, the tropic-bird, and the darter. The cormorant, the shag, the gannet, the booby, and the man-of-war-bird, have here the general denomination of pelican; and the swan, the goose, the teal, and the vigeon, are referred to the same genus with the duck, as the smew is that of the merganser. Web-footed fowl breed on the ground, as the avosett, tern, some of the gulls, mergansers, and ducks; the last pull the down from their breasts to make a softer and warmer bed for their young. Auks and guillemots lay their eggs on the naked shelves of high rocks; penguins in holes under-ground: among the pelicans, that which gives name to the genus, makes its nest in the desert on the ground. Shags sometimes on trees, cormorants and gannets on high rocks, with sticks and other coarse materials. They differ in the number of their eggs; those which border on the orders of waders lay few eggs; the avosett two; the flamingo three; the albatross, the auks, and the guillemots lay only one a-piece; the eggs of the two last are of a size strangely large in proportion to the bulk of the birds. They are commonly of a pale green colour, spotted, and striped so variously, that not two are alike; which gives every individual the means of distinguishing its own on the naked rock where such multitudes assemble.

As the third class of animals receive their name of amphibious from their living partly in the water, and partly on the land, we have a fit place to inquire wherein this faculty consists, and assign the reason why it is not possessed by all animals. For this purpose it is necessary to extend our observations not only to the whole of the class amphibia, but to several tribes of quadrupeds, and to the eels, though generally numbered among fishes. "It has been a question," says a writer in the Encyclopedia Britannica, "whether the animals commonly called amphibious, live most in the water or on land." If we consider the word (amphi, both ways,) and (bios, life,) from which the term amphibious is derived; we should understand that animals having this title should be capable of living as well by land, or in the air, as by water; or of dwelling in either constantly at will; but it will be difficult to find any animal that will fulfil this definition, as being equally qualified for either.

Dr. Parsons, an ingenious naturalist, therefore, from considering their economy, respectively divides them into two orders, viz.

1. Such as perform their chief functions by land, but occasionally go into water.
2. Such as chiefly inhabit the water, but occasionally go on shore.

What he advances on this subject is curious, and will illustrate the nature of this class. Of the first order he particularly considers the seal; and endeavours to shew that none of them can live chiefly in the water; but that their chief enjoyment of the functions of life is on shore. "These animals," he observes, "are really quadrupeds, but as their chief food is fish, they are under a necessity of going out to sea to hunt their prey, and to great distances from the shore, taking care that, however great the distance, rocks or small islands are at hand, as resting places when they are tired, or when their bodies become too much macerated in the water; and they return to the places of their usual resort to sleep, copulate, and bring forth their young. There are three necessary and principal uses of respiration in all land animals, and in those kinds that are counted amphibious. The first is that of promoting the circulation of all the blood through the whole body and extremities. In real fishes the force of the heart is alone capable of sending the blood to every part, as they are not furnished with limbs or extremities, but in the others mentioned, being all furnished with extremities, respiration is an assistant force to the arteries in sending blood to the extremities: which being so remote from the heart, have need of such assistance, otherwise the circulation would be very languid in those parts: thus we see, that in persons subject to asthmatic complaints, the circulation grows languid, the legs become cold, and other parts suffer by the defect in respiration. A second use of breathing is that in inspiration, the variety of particles of different qualities, which float always in the air, might be drawn into the lungs, to be insinuated into the mass of blood, being highly necessary to contemporate and cool the agitated mass, and to contribute refined pabulum to the fine parts of it, which meeting with the daily supply of chyle, serves to assimilate and more intimately mix the mass, and render its constitution the fitter for supporting the life of the animal. Therefore it is, that valetudinarians by changing foul or unwholesome air, for a free good open air, often recover from lingering diseases. A third principal use of respiration is to promote the exhibition of voice in animals; which all those that live on land have according to their specific natures. From these considerations it appears, that the seals of every kind are under an absolute necessity of making the land their principal residence. But there is another very convincing argument why they reside on shore the greatest part of their time, namely, that the flesh of those creatures is analogous to that of other land animals, and therefore, by over long maceration, added to the fatigue of chasing their prey, they would suffer such a relaxation as would destroy them. It is well known that animals who have been long under water, are reduced to a very lax and putrid state; and the seal must bask in the air on shore, for while the solids are at rest they require their former degree of tension, and the vigour of the animal is restored; and while he has an uninterrupted placid respiration, his blood is refreshed by the new supply of air, as above explained, and he is rendered fit for the next cruise: for action wastes the most exalted fluids of the body more or less according to its duration or violence; and the restorative rest must continue a longer or shorter time, according to the quantity of the previous fatigue. Let us now examine by what power these animals are capable of remaining longer under water than land animals. All these have the oval hole open between the

right and left auricles of the heart; and in many the arteriosus also: and while the seal remains under water, which he may continue an hour or two, more or less, his respiration is stopped, and the blood not finding the passage through the pulmonary artery free, rushes through the hole from the right to the left auricle, and partly through the arterial canal, being a short passage to the aorta, and thence to every part of the body, maintaining the circulation, but upon using to come ashore, the blood finds its passage again through the lungs the moment he respires. Otters, beavers, and some kinds of rats, go occasionally into the water for their prey, but cannot remain long under water. "I have often gone to shoot otters," says our author, "and watched all their motions. I have seen one of them go softly from a bank into a river, and dive down, and in about two minutes arise, at ten or fifteen yards from the place he went in, with a middling salmon in his mouth, which he brought on shore: I shot him, and saved the fish whole." Now, as all fœtuses have three passages open, if a whelp of a true water-spaniel was, immediately after its birth, served as the seal does her cubs, and immersed in water, to stop respiration, for a little time every day, it is probable that the hole and canal would be kept open, and the dog be made capable of remaining as long under-water, as the seal. Frogs, how capable soever of remaining in the water, yet cannot avoid living on land, for they respire; and if a frog be cast into the river he makes to the shore as fast as he can The lizard kind, such as may be called water-lizards, are all obliged to come to land in order to deposit their eggs, to rest, and sleep. Even the crocodiles, who dwell much in rivers, sleep and lay their eggs on shore, and while in water are compelled to rise to the surface to breathe: yet, from the texture of his scaly covering, he is capable of remaining in the water longer by far than any species of the seal, whose skin is analogous to that of the horse or cow.

The hippopotamus, who wades into the lakes or rivers, is a quadruped, and remains under the water a considerable time; yet his chief residence is upon land, and he must come on shore for respiration. The testudo, or sea tortoise, though he goes out to sea, and is often found far from land, yet, being a respiring animal, cannot remain long under water. He has, indeed, a power of rendering himself specifically heavier or lighter than the water, and therefore can let himself down to avoid an enemy, or a storm. Yet he is under a necessity of rising frequently to breathe, for reasons given before, and his most usual situation, while at sea, is upon the surface of the water, feeding upon the various substances that float in great abundance every where about him; these animals sleep securely upon the surface, but not under the water, and can remain longer at sea than any other of this class, except the crocodile, because, with the latter, his covering is not in danger of being too much macerated; yet they must go on shore to copulate and lay their eggs. The consideration of these is sufficient to inform us of the nature of the first order of the class of amphibious animals; let us now see what is to be said in the second in our division of them, which are such as chiefly inhabit the water, but occasionally go on shore. These are but of two kinds, the eels or water serpents, or snakes of every kind. It is their form which qualifies for locomotion, and they know their way back to the water at will; for by their structure they have a strong

peristaltic motion, by which they can go forward at a pretty good rate; whereas all other kinds of fish, whether vertical or horizontal, are incapable of a voluntary locomotion on shore; and therefore as soon as such fish are brought out of the water, after having flounced a-while, they lie motionless, and soon die. Let us now examine into the reason why these vermicular fish, the eel, and serpent kind, can live a considerable time on land, and the vertical and horizontal kind die almost immediately when taken out of the water; and in this research we shall come to know what analogy there is between land animals and those of the water. All land animals have lungs, and can live no longer than while those are inflated by the ambient air, and alternately compressed for its expulsion, that is, while respiration is duly carried on, by a regular inspiration and expiration of the air. In like manner, the fish in general have gills instead of lungs, and as in land animals the lungs have a larger portion of the mass of blood circulating through them, which must be stopped if the air has not a free ingress and egress, so in fish there is a great number of blood-vessels that pass through the gills, and a great portion of their blood circulated through them, which must in like manner be totally stopped if the gills are not perpetually wet with water. So that as the air is to the lungs in land animals a constant assistant to the circulation, so is the water to the gills of those in rivers and seas: for when these are out of the water the gills very soon grow crisp and dry, the blood-vessels are shrunk, and the blood is obstructed from having respiration, the circulation ceases, and the animal dies. Again, as land animals would be destroyed by too much maceration in water, so fish would on the other hand, be ruined by too much exsiccation; the latter being, by their structure and constitution, made fit to bear and live in the water; the former, by their constitution and form, to breathe and dwell in the air. But it may be asked why eels and water-snakes are capable of living longer in the air than other kinds of fish; this is answered by considering the providential care of the great Creator for these and every one of his creatures; for since they were capable of locomotion by their form, which they need not be if they were never to go on shore, it seemed necessary that they should be capable of living a considerable time on shore, otherwise their locomotion would be in vain. How is this provided for, and why? In a most convenient manner, for this order of fishes have they gills well covered from the external drying air; they are also furnished with a slimy mucus, which hinders their becoming crisp and dry for many hours; and their very skins always emit a mucous liquor, which keeps them supple and moist for a long time: whereas the gills of other kind of fish are much exposed to the air, and want the slimy matter to keep them moist. Now, if any of these, when brought out of the water, were laid in a vessel without water, they might be preserved alive a considerable time by only keeping the gills and surface of the skin constantly wet without any water to swim in.

The class amphibia is divided into two orders,

1. Reptiles, which have four legs.
2. Serpents, which have no legs.

Of reptiles there are four genera; the tortoise, the flying lizard, the lizard, and the

frog. The crocodile, the alligator, the cayman, the iguana, and the chamelion, are classed with the lizard.

The serpent, in the Linnæan system of zoology, an order of animals, belonging to the class of amphibia, and comprehending six genera, viz. the rattle-snake; the boa, including ten species; the viper: the snake; the annulated snake, the body and tail of which are composed of annular segments; and the tentaculated snake, the body and tail of which are wrinkled, without scales, and the upper part furnished with two feelers, and including two species.

If we take a survey of serpents in general, they have marks by which they are distinguished from all the rest of animated nature. They have the length and suppleness of the eel, but want fins to swim with; they have the scaly covering and pointed tail of the lizard, but they want legs to walk with; they have the crawling motion of the worm, but, unlike that animal, they have lungs to breathe with: like all the reptile kind they are resentful when offended; and nature has supplied them with terrible arms to revenge every injury. Though they are possessed of very different degrees of malignity, yet they are all formidable to man, and have a strong similitude of form to each other. With respect to their formation, all serpents have a very wide mouth in proportion to the size of the head; and what is very extraordinary, they can gape and swallow the head of another animal which is three times as big as their own. However, it is no way surprising that the skin of the snake should stretch to receive so large a morsel; the wonder seems how the jaws could take it in. To explain this, it must be observed that the jaws of a serpent do not open as ours, in the manner of a pair of hinges, where bones are applied to bones, and play one upon another; on the contrary, the serpents jaws are held together at the roots by a stretching muscular skin; by which means they open as wide as the animal chooses to stretch them, and admit of a prey much thicker than the snake's own body. The throat, like stretching leather, dilates to admit the morsel; the stomach receives it in part, and the rest remains in the gullet, till putrefaction, and the juices of the serpent's body unite to dissolve it. Some serpents have fangs or canine teeth, and others are without them. The teeth in all are crooked and hollow; and by a peculiar contrivance, are capable of being erected or depressed at pleasure. The eyes of all serpents are small if compared with the length of the body; and though differently coloured in different kinds, yet the appearance of all is malign and heavy, and from their known qualities they strike the imagination with the idea of a creature meditating mischief. In some the upper eyelid is wanting, and the serpent winks only with that below; in others, the animal has a nictating membrane or skin, resembling that which is found in birds, which keeps the eye clear, and preserves the sight. The substance of the eye in all is hard and horny, the crystalline humour occupying a great part of the globe. The holes for hearing are very visible in all; but there are no conduits for smelling; though it is probable that some of them enjoy that sense in tolerable perfection. The tongue in all these animals is long and forky; it is composed of two long fleshy substances, which terminate in sharp points, and are very pliable. At the root it is connected very strongly to the neck by two tendons that give it variety of play.

Some of the viper kind have tongues a fifth part of the length of their bodies; they are continually darting them out; but they are entirely harmless, and only terrify those who are ignorant of the real situation of their poison. Like most other animals, serpents are furnished with lungs, which we suppose are serviceable in breathing, though we cannot perceive the manner in which this operation is performed; for though serpents are often seen apparently to draw their breath, yet we cannot find the smallest signs of their ever respiring it again. Their lungs, however, are long and large, and doubtless are necessary to promote their languid circulation. The heart is formed as in the tortoise, the frog, and the lizard kinds, so as to work without the assistance of the lungs. It is single, the greatest part of the blood flowing from the great vein to the great artery by the shortest course. By this contrivance of nature, we easily gather two consequences; that snakes are amphibious, being equally capable of living on land and in the water; and that they are also torpid in winter, like the bat, the lizard, and other animals formed in the same manner. As the body of this animal is long, slender, and capable of bending in every direction, the number of joints in the back-bone are numerous beyond what one would imagine. In the generality of quadrupeds they amount not to above 30 or 40; in the serpent kind they amount to 145 from the head to the vent, and 25 more from that to the tail. The number of these joints must give the back a surprising degree of pliancy; but this is still increased by the manner in which each of these joints is locked into the other. In man and quadrupeds the flat surfaces of the bones are laid one against the other, and bound tight with sinews: but in serpents the bones play one within the other, like ball and socket, so that they have full motion upon each other in every direction. Though the number of joints in the back-bone is very great, yet that of the ribs is still greater; for from the head to the vent there are two ribs to every joint, which makes their number 290 in all. These ribs are furnished with muscles, four in number; which being inserted into the head, run along to the end of the tail, and give the animal great strength and agility in all its motions. The skin also contributes to its motion, being furnished with a number of scales, united to each other by a transparent membrane, which grows harder as it grows older, until the animal changes it, which is generally done twice a year. This cover then bursts near the head, and the serpent creeps from it by an undulatory motion, in a new skin much more vivid than the former. If the slough be then viewed, every scale will be distinctly seen like a piece of net work, and will be found greatest where the part of the body they covered was largest. There is much geometrical neatness in the disposal of the serpent's scales, for assisting the animal's sinuous motion. As the edges of the foremost scales lie over the end of the following scales, so those edges, when the scales are erected, which the animal has the power of doing in a small degree, catch in the ground like the nails in the wheel of a chariot, and so promote and facilitate the animals progressive motion. The erecting of these scales is by means of a multitude of distinct muscles with which each is supplied, and one end of which is tacked each to the middle of the foregoing. In some of the serpent kind there is the exactest symmetry in these scales; in others they are disposed more irregularly. In some there are larger scales on the belly, and often answering to

the number of ribs; in others, however, the animal is without them. Upon this slight difference Linnæus has founded his distinction of the serpent tribe.

Some serpents bring forth their young alive, as the viper; some bring forth eggs, which are hatched by the heat of their situation, as the common black snake, and the majority of the serpent tribe. When a reader ignorant of anatomy is told that some of these animals produce their young alive, and that some produce eggs only, he is apt to suppose a very great difference in the internal conformation which makes such a variety in the manner of bringing forth. But this is not the case, these animals are internally alike, in whatever manner they produce their young, and the variety of their bringing forth is rather a slight than a real discrimination. The only difference is, that the viper hatches her eggs and brings them to maturity within her body; the snake is more premature in her productions, and sends her eggs into the light some time before the young ones are capable of leaving the shell. Thus, if either are opened, the eggs will be found in the womb, covered with a membranous shell, and adhering to each other like large beads on a string. In the eggs of both the young ones will be found, though at different stages of maturity: those of the viper will crawl and bite the moment the shell that incloses them is broken open: those of the snake are not yet arrived at their perfect form. There is a very small bone closely fixed to the upper jaw in the inside of the lip of a poisonous serpent, which has a power of moving backward or forward; to this two or three fangs are annexed larger than the teeth, which the serpent, by its assistance, when enraged, darts forward, or withdraws and conceals at his pleasure in a similar manner to the claws of a cat. Each of these fangs is surrounded with a vesicle furnished with glands, secreting a certain fluid, which, upon the vesicle being pressed, seems to flow out of the point of the fang. The serpent, when incensed, raising his head, extends the small bone armed with the fangs mentioned above, and attacking his enemy with a force combined of the weight of his head, and the action of the muscles, he wounds him with the expanded fangs, and the vesicle being compressed, the poison immediately flows into the wound: this is clear from the experience of those who, having broken off their fangs with a pair of forceps, handle the serpent, thus disarmed, without any hurt.

Fishes form the fourth class of animals in the Linnæan system. This class is there arranged into six orders, under three great divisions; none of which, however, include the cetaceous tribes, or the whale, dolphin, &c. these forming an order of the class mammalia in the same system. Mr. Pennant, in his British Zoology, makes a different, and very judicious arrangement, by which the cetaceous are restored to their proper rank. He distributes fish into three divisions, comprehending six orders. His divisions are cetaceous, cartilaginous, and bony. Of the cetaceous fishes we have already treated. The characters of cartilaginous fishes are the following; breathing through certain apertures generally placed on each side the neck; but in some instances beneath, in some above, and from one to seven in number in each part, except in the pipe-fish, which has only one; the muscles supported by cartilages instead of bones. Example the picked dog-fish. The genera are the lamprey, skate, shark, fishing-frog, sturgeon, sun-fish,

lump-fish, pipe-fish. Bony-fish includes those whose muscles are supported by bones or spines, which breathe through gills covered or guarded by thin bony plates, open on the sides, and dilatable by means of a certain row of bones on their lower part, each separated by a thin web; which bones are called the gill-covering rays. The tails of all the fish that form this division are placed in a situation perpendicular to the body; and this is an invariable character. The great sections of the bony-fish into apodal, jugular, thoratic, abdominal, he copies frrom Linnæus; who founds this system on a comparison of the ventral fins to the feet of land animals, or reptiles; and either from the want of them, or their particular situation in respect to the other fins, establishes his sections.

Naturalists observe an exceeding great degree of wisdom in the structure of fishes, and in their conformation to the element in which they are to live. Most of them have the same external form, sharp at either end, and swelling in the middle, by which they are enabled to traverse the fluid in which they reside with greater velocity and ease. This shape is in some measure imitated by men in those vessels which they design to sail with the greatest swiftness; but the progress of the swiftest sailing ship is far inferior to to that of fishes. Any of the large fishes overtake a ship in full sail with the greatest ease, play round it as though it did not move at all, and can get before it at pleasure. The chief instruments of a fishe's motion have been supposed to be the fins, which in some are much more numerous than in others. A fish completely fitted for swimming with rapidity, is generally furnished with two pair of fins on the sides, and three single ones, two above and one below: but it does not always happen that the fish which has the greatest number of fins is the swiftest swimmer. The shark is thought to be one of the swiftest fishes, and yet it has no fins on its belly; the haddock seems to be more completely fitted for motion, and yet it does not move so swiftly. It is even observable that some fishes which have no fins at all, such as lobsters, dart forward with prodigious rapidity, by means of their tail; and the instrument of progressive motion in all fishes is now found to be the tail. The great use of the fins is to keep the body in equilibrio: and if the fins are cut off the fish can still swim, but will turn upon its side or its back without being able to keep itself in an erect posture as before. If the fish desires to turn, a blow from the tail sends it about in an instant, but if the tail strikes both ways then the motion is progressive. All fishes are furnished with a slimy glutinous matter, which defends their bodies from the immediate contact of the surrounding fluid, and which likewise, in all probability, assists their motion through the water. Beneath this, in many kinds, is found a strong covering of scales, which, like a coat of mail, defends it still more powerfully; and under that, before we come to the muscular parts of the body, lies an oily substance, which also tends to preserve the requisite warmth and vigour. Fishes are in general the most voracious animals in nature. In most of them the maw is placed next the mouth; and though possessed of no sensible heat, is endowed with a very surprising faculty of digestion. Its digestive power seems in some measure to increase in proportion to the quantity of food with which the fish is supplied. A single pike has been known to devour 100 roaches in three days. Whatever is possessed of life seems to be the most desirable prey for fishes. Some that have very small mouths feed on worms,

and the spawn of other fish; others whose mouths are larger seek larger prey; it matters not of what kind, whether of their own species or any other: those with the largest mouths pursue almost every thing that hath life; and after meeting each other in fierce opposition, the fish with the largest swallow comes off with the victory, and devours its antagonist. As a counterbalance to this great voracity, however, fishes are incredibly prolific. Some bring forth their young alive, others produce only eggs; the former are rather the least fruitful, yet even these produce in great abundance. The viviparous blenny, for instance, brings forth 290 or 300 at a time. Those which produce eggs, which they are obliged to leave to chance, either on the bottom where the water is shallow, or floating on the surface where it is deeper, are all much more prolific, and seem to proportion their stock to the danger there is of consumption. We are assured that the cod spawns above nine millions in a season. The flounder commonly produces above one million, and the mackarel above 500,000. Scarce one in a hundred of those eggs, however, bring forth an animal, they are devoured by all the lesser fry that frequent the shores, by water-fowl in shallow waters and by the larger fish in deep waters Such a prodigious increase, if permitted to come to maturity, would overstock nature, even the ocean itself would not be able to contain, much less provide for one half of its inhabitants. But two wise purposes are answered by this amazing increase; it preserves the species in the midst of numberless enemies, and serves to furnish the rest with a sustenance adapted to their nature.

Insects differ as widely from worms as the class of mammalia from birds. Every insect is furnished with a head, antennæ, and feet, of all which the worms are destitute. All insects have six or more feet; they respire through pores placed on the sides of their bodies, and which are termed spinacula; their skin is extremely hard, and serves them instead of bones, of which they have, internally, none. But the antennæ placed on the forepart of the head constitute the principal distinction. These are jointed, and moveable in every part, in which they differ from the horns of other animals; they are organs conveying some kind of sense, but we have no more idea what kind of sense this is than a man has who, without eyes, attempts to determine the particular action of the rays of light on the retina of the eye, or to explain the changes which from thence take place in the mind. They are doubtless organs of some kind of sense, from their perpetually moving them forward; yet the hard crust with which they are covered, and their shortness in flies and other insects, would induce one to believe them not to be the organs of touch. Mr. Barbut supposes them to constitute, or to contain the organs of hearing. That they are tubular, and filled with air, and some kind of humor, appears from the antennæ of butterflies immersed in water. Many insects have no tongue, nor make any sound with their mouth; but for this purpose some use their wings, others their feet, and others some elastic instrument with which they are naturally furnished. Most insects have two eyes; but the gyrinus has four, the scorpion six, the spider eight, and the scolopendra three. They have no eyebrows, but the external tunic of their eye is hard, and transparent, like a watch glass; their eyes have no external motion unless it be in the crab. They consist, for the most part, of one lens only; but in those of the butterfly, clipteræ,

and many of the beetles, they are more numerous. Pugeit discovered 17,325 lenses in the cornea of a butterfly, and Lieuwenhock 300 in a fly. Besides those of male and female; a third sex exists in some insects, which we call neuter: as these have not the distinguishing parts of either sex, they may be considered as eunuchs or infertile. We know of no instance of this kind in any other class of animals, nor in vegetables, except in the class syngenesia, and in the opulus. This kind of sex is only found among those insects which form themselves into societies, as bees, wasps, and ants; here these kind of eunuchs are real slaves, as on them lies the whole business of the economy, while those of the other sex are idle, only employing themselves in the increase of the family. Each family of bees has one female only (called the queen,) many males, and almost an innumerable quantity of neuters. Of these the neuters, whose antennæ have 11 joints, do the working part; they extract and collect honey and wax, build up the cells, keep watch, and do a variety of other things. The males, whose antennæ consist of 15 joints, do no work; they serve the female once at the expence of their lives: they may be considered in the light of a set of parasites; but as soon as their business of impregnation is over, they are expelled by their servants the neuters, who now shake off the yoke, but yet pay all due respect to their common mother the queen. The same economy nearly takes place in wasps, where the young females which impregnated in the autumn live through the winter, and in the spring propagate their species; but the queen, together with all the males, perish in the winter. Among ants, the neuters form a hill in the shape of a cone, that the water may run off it, and place those which are in the pupa state on that side of it which is least exposed to the heat of the sun, At a considerable distance from these is found the habitation of the males and females, to whom the most ready obedience is yielded by the neuters, till a new offspring succeeds, and then they oblige them to quit their habitations. But those ants which live entirely under-ground provide better for themselves in this respect; for a little before their nuptials they quit their habitation of their own accord, and, after swarming in the manner of bees, they copulate in the air, and each retiring to some new habitation, founds a new family. There are no insects, except those of the aptera class, but what are continually undergoing some transformation. Insects change first from the egg into the caterpillar or maggot, then into the crysalis, and lastly into the fly or perfect state. During each of these changes their appearance differs as much as night and day. The insect, as soon as it comes out of the egg, is called larva, a name expressive of the insects being in this state, as it were, masked, or having its true appearance concealed. Under this mask or skin the entire insect, such as it afterwards appeared when perfect, lies concealed, enveloped only in its tender wings, and putting on a soft and pulpy appearance; insomuch that Swammerdam was able to demonstrate the butterfly with its wings to exist in a caterpillar, though it bore but a faint resemblance to its future perfection. The insect, therefore, in this state undergoes no other alteration but the change in its skin. The larvæ are for the most part larger than the insect when perfect, and are very voracious. The caterpillar of the cabbage butterfly eats double what it would seem to require from its size, but its growth is not adequate to its voracity.

clammy liquor, by means of which it slides down. It never damages the roots of vegetables. Its food is a small portion of earth, which it has the faculty of digesting; the superfluity is ejected by way of excrement, under a vermicular appearance. The order of molusca differ very materially in their appearance; they most of them, however, are inhabitants of the ocean, but some of them, as the linox, or naked snail, of the land. The sea-mouse has an oval body, with 32 small tentacula on its sides, which serve as feet; the mouth is cylindrical at one end of the body, and capable of being retracted with two bristly tentacula. It is an inhabitant of the European sea, and often found in the belly of the cod-fish. It feeds upon shell-fish. The star-fish has a depressed body, covered with a coat, which resembles bark, and is composed of five or more segments, running out from a central post, and furnished with numerous tentacula, and has the mouth in the centre. The conformation of the mouth is this; the under part of each lobe runs towards a point with the rest at the centre of the body; and the several productions of the rays make a sort of lips, the ends of which are armed with a number of sharp teeth, which serve to take and convey the food into the body. From this mouth there goes a separate canal to all or many of the rays, which runs through their whole length, and becomes gradually narrower as it approaches the extremity. The tentacula resemble the horns of snails, but serve the animal to walk with. They are capable of being contracted or shortened: and it is only at the creatures moving that they are seen at their full length, at other times no part of them is seen but the extremity of each, which is formed like a sort of button, being somewhat larger than the rest of the horn. The echinus has a roundish body, covered with a bony crust, and often beset with moveable prickles, and the mouth is below, and consists of five valves. The eatable echinus is of a hemispherical form, covered with sharp strong spires, above half an inch long; commonly of a violet colour, moveable, adherent to small tubercles elegantly dispersed in rows. These are their instruments of motion by which they change their place. This species is taken in dredging, and often lodges in cavities of the rocks just within low water mark. They are eaten by the poor in many parts of England, and by the better sort abroad. In old times they were a favourite dish; they were dressed with vinegar, honied wine, or mead, parsley or mint, and thought to agree with the stomach. The limax, slug, or naked snail has an oblong body, fitted for crawling, with a kind of muscular coat on the upper part; and the belly is plain. They have four tentacula, or horns situated above the mouth, which they extend or retract at pleasure. This reptile is always destitute of shell; but besides that its skin is more clammy, and of greater consistency than that of the snail. The black naked slug has a furrowed cloak almost as thick and as hard as leather, under which it withdraws its head as within a shell. The head is distinguished from the breast by a black line. It is in its head and back that the snail-stone is found, which is a small pearled and sandy stone, of the nature of lime stones; according to a popular opinion it cures the tertian ague if fastened to the patient's arm. The medusa is a genus of worms, belonging also to the order of mollusca. The body is roundish and depressed; and the mouth is in the centre of the under part of the body. Many species, on being handled, affect like a nettle with burn-

ing and excite a redness. Their phosphoric quality is well known; nor was it overlooked by the antients. Pliny observes, that if rubbed with a stick it will appear to burn, and the wood to shine all over. The same naturalist observes, that when they sink to the bottom of the sea they portend a continuance of bad weather. The surited medusa, which appears, as floating on the water, to be a mere lifeless lump of jelly, is of a whitish colour, with a cast of bluish grey, and is of an orbiculated figure, elevated into a convexity in the middle on the upper side, flat on the under, and furnished with a fringe of fine, and somewhat rigid, filaments round the edge, resembling white hairs; on the under surface there are four cavities near the centre, each surrounded with an opaque line, formed of about 24 parallel points on dots; from the very centre of the under side there arise four crooked appendages, which have each a row of hairy filaments on the exterior edge, and on the upper surface there is an appearance of fine vessels of a pale colour. This species is seen frequently floating on the surface of the sea, or adhering to rocks about our own coast; and when the sun shines on them, they have a very beautiful lucid appearance. It is called by some the sea-nettle, it being one of those animals that when touched occasions a very disagreeable tingling in the hands.

The capillated medusa is a very singular and odd animal; it seems a mere lump of whitish semi-lucid jelly, and is as easily broken and destroyed by a touch as the common jellies brought to our tables; its shape is rounded, rising into a convexity in the middle where it is, therefore, thickest, and whence it becomes gradually thinner in the sides: on the under side it is plain, and on this there is a visible or rough circle, within which there run eight pair of rays from the centre towards the circumference: and from the centre there arise also a number of curled appendages, which are sometimes reddish, but more usually whitish, and a vast number of slender filaments. This species is to be met with, in vast abundance, floating on the surface of the water about Sheppey island, in Kent, and elsewhere on that coast: great quantities of it are destroyed by being thrown on shore with the waves, whence it has no power of getting off again; and in the open seas many fish skim near the surface, and prey on them. This is the species called by many authors the sea-lungs. The last of the mollusca we shall describe is the cuttle-fish. It has eight brachia, or limbs, interspersed on the interior side with little round cups, by the construction of which the animal lays fast hold of any thing. Besides these eight arms, it has two tentacula longer than the arms. The mouth is situated in the centre of the arms, and is horny and hooked like the bill of a hawk. The eyes are below the tentacula, towards the body of the animal. The body is fleshy, and received into a sheath as far as the breast. Their food are tunnies, sprats, lobsters, and other shell-fish. With their arms and trunks they fasten themselves to resist the motion of the waves; their beak is like that of a parrot. The females are distinguished by two paps. The males are very constant, accompany their females every where, face every danger in their defence, and rescue them intrepidly at the hazard of their own lives. The timorous females fly as soon as they see the males wounded. The noise of the cuttle-fish, on being digged out of the water, resembles the grunting of a hog. When the male is pursued by the sea-wolf, or other ravenous fish, he shuns the danger by stra-

tagem. He squirts the black liquor, sometimes to the quantity of a dram, by which the water becomes as black as ink, under the shelter of which he baffles the pursuit of his enemy.

The order of testacea comprehends all shell-fish and snails. Shell-fish are animals with a soft body, covered by, or inclosed with a hard and stony habitation, composed according to their three separate orders. The first, of many parts which are ranged under the name of multivalves. Second, of two parts, which are called bivalves. Third, of one part, or piece only, which we call univalves. Those parts, pieces, or valves, are more or less moveable at the animal's pleasure. Of the snail there are many different species, some of which live on land, frequenting woods and gardens, or inhabiting clefts of rocks, or dry sandy banks, while others of them are aquatic. and inhabiting ponds, deep rivers, and the ocean. The eyes of snails are lodged in their horns, one at the end of each horn, which they can retract at pleasure. The dissection of this animal is very curious, for by this means the microscope not only discovers the heart beating just against the round hole near the neck, which seems the place of respiration, but also the liver, spleen, stomach, and intestines, with the veins, arteries, mouth, and teeth, are plainly observable. The guts of this creature are green from its eating of herbs, and are branched all over with fine capillary white veins: the mouth is like a hare's or rabbit's, with four or six needle teeth resembling those of leeches, and of a like substance. Horn-snails are all hermaphrodites, having both sexes united in each individual. They lay their eggs with great care in the earth, and the young ones are hatched with their shells completely formed. Cutting off a snail's head a little stone appears, which is supposed to be a great diarrhœtic, and good in all nephritic disorders. Immediately under this stone the heart is seen beating, and the auricles are evidently distinguishable, and are membranous, and of a white colour; as are also the vessels which proceed from them. So small an animal as the snail is not free from the plague of supporting other smaller animals on its body; and as in other animals we find these secondary ones either living only on their surface, as lice, &c. or only in their intestines, as worms, it is very remarkable that these creatures infest the snail in both these manners, being found sometimes on the surface of its body, and sometimes within its intestines. Among the numerous species of shell-fish are many which deserve attention. Some as articles of food, others for the production of the pearl, others on the account of their affording an excellent purple dye, and others, as the nautilus and argonaut, as having taught mankind the first principles of sailing.

Our design in this chapter is not, however, to speak of animals as related to man, but as subsisting for themselves, to examine the characteristics by which they are distinguished, and the laws to which they are subject. It will, therefore, be sufficient for our purpose to instance the muscle and the oyster, to enable the reader to judge by analogy of the rest. Muscles are of a great many different species, some of them inhabiting the seas, and others the ponds and rivers. Several of them are remarkable for the beauty of their internal shell, and for the pearls they sometimes contain. Muscles not only open and shut their shells at pleasure, but they have also a progressive motion;

they can fasten themselves where they please; they respire water like fishes; and some even float about on its surface so as to inhale the air. If they be in shallow places a small circular motion is seen above the keel of the shell, and a few moments after they cast out the water by one single stroke at the end of the shell. The mouth is situated near the sharp angle of the animal, and is furnished with four floating fringes in the shape of mustachios which may perhaps answer the purpose of lips. The barbs which surround the edge of almost half the muscle, are a wonderful web of hollow fibres which serve as fins or organs of respiration, as vessels for the circulation of the fluids, and probably, as some philosophers suppose, as wedges for opening their shells, for we observe two large muscles or tendons for the purpose of shutting them; but we in vain look for their antagonist, or those which are destined to open them. When the muscle wishes to open itself it relaxes two muscles or tendons, and swells the fringes, which act as wedges, and separate the shells. The animal shuts up itself by the contraction of two thick fibrous muscles, which are fixed internally to each end of the shells, and these shells are lined all around with a membrane, which unites them so closely together when they are soaked in water, that not the smallest drop can escape from the muscle. When muscles choose to walk they often contrive to raise themselves on the sharp edge of their shells, and put forth a fleshy substance, susceptible of extension, which serves them as a leg to drag themselves along, in a kind of groove or furrow which they form in the sand or mud, and which supports the shell on both sides. In ponds these furrows are very observable. From the same member or leg hang the threads by which the animals fasten themselves to rocks or to one another. According to the observations of M. Mery, of the Paris Academy, and the subsequent experiments of other naturalists, muscles are all androgynous, and from a peculiar generative organization, each individual is of itself capable of propagating its species, and annually does it without the intercourse of any other. This is altogether singular, and different from what takes place in snails, earth-worms, and other androgynous or hermaphroditical animals; for though each individual of these contains the parts of both sexes, yet there is always a congress of two animals for the propagating of the species. It is in the spring that muscles lay their eggs, there being none found in them but in winter. M. Lewenhoock, in several muscles which he dissected, discovered a number of eggs in embryo, muscles in the ovarium appearing as plainly as if he had seen them by the naked eye, and all lying with their sharp ends fastened to the string of vessels by which they receive nourishment. The minute eggs, or embryo, are by the parent placed in due order, and in a very close arrangement on the outside of the shell, where by means of a gluey matter, they adhere very fast, and continually increase in size and strength, till, becoming perfect, they fall off and shift for themselves, leaving the holes where they were placed behind them. Their abundance the muscle-shells very plainly shew when examined by the microscope, and sometimes the number is 2000 or 3000 in one shell, but it is not certain that these have been all fixed there by the muscle within; for these fish usually lying in great numbers near one another, the embryo of one are often affixed to the shell of another. The fringed edge of the muscle, which Leweuhoock calls the beard, has in every the minutest part of it, such

variety of motions as are inconceivable, for being composed of longish fibres, each fibre has in both sides of it a vast many moving particles. The muscle is infested by several enemies in its own element: according to Reaumer, it is in particular the prey of a small shell-fish of the trochus kind. This animal attaches itself to the shell of the muscle, pierces it with a round hole, and introduces a sort of tube, five or six lines long, which it turns in a spiral direction, and with which it sucks the substances of the muscles. Muscles are also subject to a certain disease, which have been supposed to be the cause of those bad effects which sometimes happen from the eating of them.

Mr. Barbut gives the following account of the oyster. "This sea-fish occupies in the scale of nature one of the degrees the most remote from perfection; destitute of defensive weapons, or progressive motion, without art or industry, it is reduced to mere vegetation in perpetual imprisonment, though it every day opens regularly to enjoy the element necessary to its preservation. This animal's figure, and spring of its organization, are scarce discernable through the coarse and shapeless mass: a ligament placed at the summit of the shell serves as an arm to its operation. Oysters are reputed to be hermaphrodites; the spawn which they cast in May adheres to the rocks and other matters at the bottom of the sea; and in the space of 24 hours is provided with shells, in which are contained other oysters, that never leave the spot on which they are fixed, till the greedy fisherman tears them from the element. The green oysters eaten at Paris are commonly brought from Dieppe. Their colour is owing to the care taken to feed them in creeks encompassed with verdure, whence they acquire their delicacy. Common oysters should be fresh, tender, and moist. The most esteemed are those caught at the mouth of rivers and in clear water. Great account is made of oysters from Brittany, but still greater of those that come from Morennes, in Saintonge. Preference is given to those that are edged with a small brown fringe or beard which epicures call fecundated oysters; but that those are female is a mistake. The want of fresh water renders oysters hard, bitter, and unpalatable. Mud and sea weeds destroy them in their very birth; galangol roots, muscles, scallop, sea-stars, and crabs, are formidable enemies to the oyster. There are found in Spain red and russet coloured oysters; in Illyria brown coloured, with the flesh black; and in the Red Sea, of the colour of the Iris. Oysters of the mangle-tree are of two sorts; those of St. Domingo are delicate, adhering to the stumps of the trees that dip in the water. The negro divers cut them off with a bill, and they are served upon the table with the roots."

The distinguishing characteristic of zoophites is this, that though they are properly animals, and possessed of some small portions both of sensation and of voluntary motion, yet they propagate by slifting like a plant, so that if one of them be divided into two or more parts, each of these becomes a distinct and perfect animal.

Animal flowers, though classed by Linnæus among mollusca, may not improperly be here described. They have only one opening, which is in the centre of the uppermost part of the animal; round this are placed rows of fleshy claws; this opening is the mouth of the animal, and is capable of greater extension. The animals themselves, though exceedingly voracious, will bear long fasting. They may be preserved alive a

whole year, or perhaps longer, in a vessel of sea-water, without any visible food ; but when food is presented, one of them will successively devour two muscles in their shells, or even swallow a whole crab as large as a hen's egg. In a day or two the crab-shell is voided at the mouth perfectly cleansed of all the meat. The muscle-shells are likewise discharged whole, with the two shells joined together, but entirely empty, so that not the least particle of fish is to be seen on opening them. Anemonies of one species will even swallow an individual of another species ; but after retaining it ten or twelve hours, will throw it up alive and uninjured. Through this opening also it produces its young ones alive already furnished with little claws, which, as soon as they fix themselves, they begin to extend in search of food. One of the extremities of the sea anemony resembles, as we have said, the outward leaves of that flower ; while its limbs are not unlike the shag or inner part of it. By the other extremity it fixes itself as by a sucker, to the rocks or stones lying in the sand, but it is not totally deprived of the power of progressive motion, as it can shift its situation, though very slowly.

The sponge is fixed, flexible, and very torpid, growing in various forms, composed either of reticulated fibres, or mosses of small spines interwoven together, and cloathed with a living flesh, full of small mouths or holes, by which it sucks in and throws out the water. So early as the days of Aristotle, sponges were supposed to possess animal life, the persons employed in collecting them having observed them shrink when torn from the rocks, thus exhibiting symptoms of sensation. The same opinion prevailed in the time of Pliny : but no attention was paid to this subject till Count Morsigli examined them, and declared them vegetable. Dr. Peysonell, in a paper which he sent to the Royal Society, in the year 1752, and a second in 1757, affirmed they were not vegetables but the production of animals ; and has accordingly described the animals, and the progress which they performed in making the sponges. Mr. Ellis, in the year 1762, was at great pains to discover these animals. For this purpose he dissected the spongia urens, and was surprised to find a great number of small worms, of the genus of the sea scolopendra, which had pierced their way through the soft substance of the sponge in quest of a safe retreat. That this was really the case, he was fully assured of by inspecting a number of specimens of the same sort of sponge, just fresh from the sea. He put them into a glass filled with sea-water, and then instead of seeing any of the little animals which Dr. Peysonell described, he observed the small holes with which the papillæ are surrounded, contract and dilate themselves. He examined another variety of the same species of sponge, and plainly perceived the small tubes inspire and expire the water. He therefore concluded that the sponge is an animal, and that the ends or openings of the branched tubes are the mouths by which it receives its nourishment and discharges its excrements.

Most of the other animals of the zoophite tribe are denominated polypes ; of these one species is an inhabitant of fresh water. These were first discovered by Lewnboock, who gave some account of them in the Philosophical Transactions for 1703 ; but their wonderful proportion was not discovered till the year 1740, when Mr. Trembly began to investigate them. The general character of the polype is, that

it fixes itself by its base, is gelatinous, linear, niched, and can change its place. The mouth, which is placed at one end, is surrounded with hair like feelers. The young ones grow out from its sides; but in autumn it produces eggs from its sides. There are seven varieties.

1. The viridis, or green polype, has commonly ten short arms.

2. The fusca has frequently eight arms, several times larger than its body.

3. The grisea is of a yellowish colour, small towards the bottom, and has long arms, generally about seven in number.

4. The pollers has generally about six arms, of a moderate length.

5. The hydotula has a vesicular body, and four obsolete arms. It is found in the abdomen of sheep, swine, &c.

6. The stentarea has been called the tunnel shaped, and has a mouth surrounded with a row of hairs.

7. The socialis is bearded, thick, and wrinkled.

The three first species are those on which the greatest number of experiments have been made: and their shapes are so various that it is by no means easy to describe them. They are generally found in ditches. Whoever has carefully examined these when the sun is very powerful, will find many little transparent lumps, of the appearance of jelly, and size of a pea, and flatted upon one side. The same kind of substances are likewise to be met with on the under side of the leaves of plants which grow in such places. These are the polypes in a quiescent state, and apparently inanimate. They are generally fixed by one end to some solid substance, with a large opening, which is the mouth, at the other; having severel arms fixed round it, projecting as rays from the centre. They are slender, pellucid, and formed of a tender substance like the horns of a snail, and capable of contracting themselves into a very small compass, or of extending to a considerable length. The arms are capable of the same contraction and expansion as the body; and with these they lay hold of minute worms, and other insects, bringing them to the mouth and swallowing them; the indigestibie parts are again thrown out by the mouth. The green polype was that first discovered by Mr. Trembly; and the first appearances of spontaneous motion were perceived in its arms, which it can contract, extend, and twist about in various directions. On the first appearance of danger they contract to such a degree that they appear little bigger than a grain of sand, and of a fine green colour, the arms disappearing entirely. Soon after he found the grisea, and afterwards the fusca. The bodies of the virdis and grisea diminish almost insensibly from the anterior to the posterior extremity; but the fusca is for the most part of an equal size for two thirds of its length from the anterior to the posterior extremity, from which it becomes abruptly smaller, and then continues of a regular size to the end. These three kinds have at least six, and at most twelve or thirten arms, though sometimes the grisea is met with having eighteen arms. They can contract themselves till their bodies do not exceed one-tenth of an inch in length, and they can stop at any intermediate degree of contraction or extension. They are of various sizes, from half an inch to an inch and a half long: their arms are seldom longer than their bodies, though some have them an inch, and some even eight inches long. The thickness of their bodies decreases as they

extend themselves, and vice versa; and they may be made to contract themselves either by agitating the water, in which they are contained, or by touching the animals themselves. When taken out of the water they all contract so much as to appear like little lumps of jelly. The arms have the same power of contraction or expansion as the body has, and they can contract or expand one arm, or any number of arms, independent of the rest; and they can likewise bend their bodies and arms in all possible directions. They can also contract or dilate their bodies in various places, and sometimes appear thickset with folds, which, when carelessly viewed, appear like rings. Their progressive motion is performed by that power which they have of dilating or contracting their bodies. When about to move they bend down their heads and arms, lay hold, by means of them, on some other substance to which they design to fasten themselves; then they lessen the tail, and draw it towards the head; then either fix it in that place, or stretching forward the head as before, repeat the same operation. They ascend or descend at pleasure in this manner upon aquatic plants, or upon the side of the vessel in which they are kept; they sometimes hang by the tail from the surface of the water, or sometimes by one of the arms, and can walk with ease upon the surface of the water, and as it were in a little space, of which the tail forms the bottom; so that it seems to be suspended on the surface of the water on the same principle that a pin or needle is made to swim. When a polype therefore means to pass from the sides of the glass to the surface of the water, it has only to put that part out of the water by which it is to be supported, and to give it time to dry, which it always does upon these occasions, and they attach themselves so firmly by the tail to aquatic plants, stones, &c. that they cannot be easily disengaged; they often further strengthen their attachments by means of one or two of their arms, which serve as a kind of anchors for fixing them to the adjacent substances.

The stomach of the polype is a kind of bag or gut, into which the mouth opens, and goes from the head to the tail. This in a strong light is visible to the naked eye, especially if the animal be placed between the eye and a candle, for these animals are quite transparent, whatever their colour may be. The stomach, however, appears to more advantage through a powerful magnifier. Mr. Trembly, by cutting one of these animals transversely into three parts, satisfied himself that they were perforated throughout. Each piece immediately contracted itself, and the proportion was very visible through a microscope. The skin which incloses the stomach is that of the polype itself; so that the whole animal, properly speaking, consists only of one skin in the form of a tube, and open at both ends, no vessels of any kind are to be distinguished. The mouth is situated at the anterior end in the middle between the shooting forth of the arms, and assumes different appearances according to circumstances; being sometimes lengthened out in the form of a nipple, at others appearing truncated; sometimes the aperture is quite closed, at others there is a hollow; though at all times a small aperture may be discovered by a powerful magnifier. That species named fusca has the longest arms, and makes use of the most curious manœuvres to seize its prey. They are best viewed in a glass seven or eight inches deep, when their arms commonly hang down to the bottom. When this or any other kind is hungry, it spreads its arms in a kind of circle to a

considerable extent, inclosing in this, as in a net, every insect which has the misfortune to come within its circumference. While the animal is contracted by seizing its prey, the arms are observed to swell like the muscles of the human body when in action. Though no appearance of eyes can be observed in the polype, they certainly have some knowledge of the approach of their prey, and shew the greatest attention to it as soon as it comes near them. It seizes a worm the moment it is touched by one of the arms; and in conveying it to the mouth it frequently twists the arm into a spire like a cork screw, by which means the insect is brought to the mouth in a much shorter time than otherwise it would be; and so soon are the insects on which the polypes feed killed by them, that M. Fontant thinks they must contain the most powerful kind of poison, for the lips scarce touch the animal when it expires, though there cannot be any wound perceived in it when dead. The worm, when swallowed, appears sometimes single, sometimes double, according to circumstances. When full, the polype contracts itself, hangs down as in a kind of stupor, but extends again in proportion as the the food is digested, and the excrementious part is discharged. The bodies of the insects when swallowed, are first macerated in the stomach, then reduced into fragments, and driven backward and forward from one end of the stomach to the other, and even into the arms, however fine they may be; whence it appears that the arms, as well as the other parts of this remarkable creature, are a kind of hollow guts or stomachs. They feed on most insects found in fresh water, and will also be supported with worms, the larvæ of gnats, &c. and even with snails, large aquatic insects, and fish, or flesh, if cut into small bits. Sometimes two polypes lay hold of the same worm, and each begins to swallow its own till their mouths meet and the worm breaks; but should not this happen to be the case, one polype will sometimes devour the other along with its portion. It appears, however, that the stomach of one polype is not fitted for dissolving the substance of another, for the one which is swallowed always gets clear again after being imprisoned for an hour or two. The manner in which the polypes generate is most perceptible in the grisea and fusca, as being considerably larger than the viridis. If we examine one of them in summer, when the animal is most active, and prepared for propagation, some small tubercles will be found proceeding from its sides, which constantly increase in bulk, until at last in two or three days they assume the figure of small polypes. When they first begin to shoot, the excresence becomes pointed, assuming a conical figure, and deeper colour than the rest of the body. In a short time it becomes truncated, and then cylindrical, after which the arms begin to shoot from the anterior end. The tail adheres to the body of the parent animal, but gradually grows smaller, until at last it adheres only by a point, and is then ready to be separated. When this is the case, both the mother and the young ones fix themselves to the sides of the glass, and are separated from each other by a sudden jerk. The time requisite for the formation of the young ones is very different, according to the warmth of the weather and the nature of the food eaten by the mother. Sometimes they are fully formed and ready to drop off in 24 hours; in other cases, when the weather is cold, 15 days have been requisite for bringing them to perfection.

That genus of zoophites which are by naturalists denominated gorgonis, and are in English called sea-whips, and sea-feathers, differ from the fresh water polype in many of their qualities, and particularly in producing from their own substances a hard and solid support, serving many of the purposes of bone in other animals. This is formed by a juice thrown out from a peculiar set of longitudinal parallel tubes, running along the internal surface of the fleshy part: in the coats of those tubes are a number of small orifices through which the liquor exudes, and concreting, forms the layers of that hard part of the annular circles, which some, judging from the consistence rather than the texture, have erroneously denominated wood. The surface of the gorgonia is composed of a kind of scales, so well adapted to each other as to serve for defence against external injuries: and the flesh, or as some have called it, the bark, consists of proper muscles and tendons for extending the openings of their cell, for sending forth from thence their polype suckers in search of food; and for drowning them suddenly; and contracting the muscles of these starry shells, in order to secure these tender parts from danger; and also of proper secretory ducts, to furnish and deposit the matter that forms the stem and branches, as well as the base of the bone. Mr. Ellis affirms that there are ovaries in these animals, and thinks it very probable that many of them are viviparous. Corals, madrepones, and several other marine productions, which were formerly thought to have a sort of middle nature between plants and stones, are now found to be the work of certain very minute zoophites, or rather to bear the same relation to them as the shell does to the snail or oyster. What have been called the holes in the bark correspond to small cavities upon the substance of the coral; and when the bark is removed there may be seen an infinite quantity of little tubes connecting the bark with the inner substance, besides a great number of small glands adhering to them; and from these tubes or glands the milky juice of the coral issues forth, the holes in the bark are the openings through which the insects that form these substances for their habitations come forth; and these cavities, which are partly in the bark, and partly in the substance, are the cells which they inhabit. The organs of the animal are contained in the tubes, and the glandules are the extremities of its feet, and the milky liquor is the blood and juice of the animal, which are more or less abundant in proportion to its health and vigour. This juice or liquor runs along the furrows perceived upon the proper substances or body of coral, and stopping by little, becomes fixed and hard, and is changed into stone, and being stopped in the bark, causes the coral to increase proportionably, and in every direction. In forming coral and other marine productions of this class, the animal labours like those of the testaceous kind, each according to his species; and their productions vary according to their several forms, magnitudes, and colours.

We now proceed to consider the microscopic animalcules, which are divided by Muller in the following manner:

1. Such as have no external organs.
2. Those that have external organs.

When paste is allowed to stand it becomes sour, it is then found to be the habitation of numberless animalcules, which may be discerned by the naked eye; and though their

form cannot be perfectly distinguished, their motion is very perceptible, and the whole paste will seem to be animated. The most remarkable property of these insects is, that they are vivip ır ous. If one of them is cut through near the middle, several oval bodies of different sizes will be seen to issue forth. These are young argillæ, each of them coiled up and enclosed in its proper membrane, which is so exquisitely fine as scarce to be discernable by the greatest magnifier, while it encloses the embryo animal. The largest and most forward immediately break through this covering, unfold themselves, and wriggle about in the water nimbly; others get out, uncoil, and move themselves about more slowly; and the least mature continue entirely without motion. The uterus, or vessel that contains all these oval bodies, is composed of many ringlets, not unlike the ospera orteria of land animals, and seems to be considerably elastic; for as soon as the animalcule is cut in two, the oval bodies are thrust out with some degree of violence from the springing back or action of this bowel. An hundred and upwards of the young ones have been seen to issue from the body of one single eel, whereby the prodigious increase of them may be accounted for, as probably several such numerous generations are produced in a short time. They seem to be all prolific, and unless trial happens to be made upon one that has brought forth all its young, or when the paste has been kept for a very long time, the experiment will always succeed.

The wheel-animal is found in rain water that has stood some days in leaden gutters, or on lead at the tops of houses; or in the slime or sediment left by such water; and perhaps may also be found in other places: but if the water standing in gutters of lead, or the sediment left behind it, has any thing of a red colour in it, one may be almost certain of finding them therein. Though it discovers no signs of life except when in the water, yet it is capable of continuing alive many months after it is taken out of the water and kept in a state as dry as dust. In this state it is of a globular shape, exceeds not the bigness of a grain of sand, and no signs of life appear: but being put into water, in the space of half an hour a languid motion begins, the globule turns itself about, lengthens itself by slow degrees, assumes the form of a lively maggot, and most commonly in a few minutes after, puts out its wheel, swimming vigorously through the water, as if in search of food; or else, fixing itself by the tail, works its wheel in such a manner as to bring its food to it. The most remarkable part of this animalcule is its wheel work. This consists of a couple of semicircular instruments, round the edges of which many little fibres move themselves very briskly, sometimes with a kind of rotation, and sometimes in a trembling vibrating manner. When in this state it sometimes unfastens its tail, and swims along with a great deal of swiftness, seemingly in pursuit of prey. Sometimes the wheels seem to be entire circles, armed with small teeth like those of a balance wheel of a watch, appearing projected forwards beyond the head, and extending sideways somewhat wider than its diameter. The teeth, or cogs of these wheels seem to stand very regular at equal distances; but the figure varies according to their position, the degree of their protusion, or perhaps the will of the animal itself. They appear sometimes like minute oblong squares, rising at right angles from the periphery of a circle like antient battlements on a round tower; at other times they terminate in

sharp points, and altogether resemble a kind of Gothic crown. They are often seen in a kind of curved direction, and all bending the same way, and seeming like so many hooks: and now and then the ends of them will be perceived to be clubbed like maggots. This figure, however, as well as the first, they assume but rarely. As the wheels are every where excessively transparent, except about their circular rim or edge, where the cogs are set, it is very difficult to determine by what contrivance they are turned about, or what their real figure is, though they seem exactly to resemble a wheel moving round upon an axis. It is also hardly possible to be certain whether these circular bodies in which the teeth are set are of a flat form, or hollow and conical; but they seem rather to be of a conical figure. The difficulty of conceiving how an articulation could be contrived so as to cause a real rotation, hath caused many people to imagine that there was a deception in this case; but Mr. Baker assures us, that when the wheels are fully protruded, they never fail to shew all the marks of a regular rotation; and in some positions the cogs or teeth may be traced by the eye during a complete revolution. All the actions of this creature seem to imply sagacity and swiftness of sensation. At the least touch or motion in the water they instantly draw in their wheels; and Mr. Baker conjectures that their eyes are lodged somewhere about the wheels, because whilst in the maggot state its motions are slow and blundering; but after the wheels are protruded, they are performed with great regularity, swiftness, and steadiness.

"How many kinds of these invisibles," says Mr. Adams, "there may be is yet unknown as they are discerned of all sizes; from those which are barely visible to the naked eye, to such as resist the force of the microscope, as the fixed stars do that of the telescope, and with the greatest power hitherto invented, appear only as so many moving points. The smallest living creatures our instruments can shew, are those which inhabit the water; for animalcule equally minute may fly in the air, or creep upon the earth, it is scarce possible to get a view of them; but as water is transparent, by confining the creatures within it we can easily observe them by applying a drop of it to the glasses. Animalcules, in general, are observed to move in all directions with equal ease and rapidity, sometimes obliquely, sometimes straight forward, sometimes moving in a circular direction, or rolling upon one another, running backwards and forwards through the whole extent of the drop, as if diverting themselves; at other times greedily attacking the little parcels of matter they meet with. Notwithstanding their extreme minuteness, they know how to avoid obstacles, or to prevent any interference with one another in their motions: sometimes they will suddenly change the direction in which they move, and take an opposite one; and as by inclining the glass on which the drop of water is, it can be made to move in any direction, so the animalcules appear to move as easily against the stream as with it. When the water begins to evaporate they flock towards the place where the fluid is, and shew a great anxiety, and uncommon agitation of the organs with which they draw in the water. These motions grow languid as the water decrease, and at last cease altogether, without a possibility of renewal, if they be left dry for a short time. They sustain a great degree of cold as well as insects, and will perish in much the same degree of heat that destroys insects. Some animalcules are produced in water at the freezing

point, and some insects live in snow. By mixing the least drop of urine with the water in which they swim, they instantly fall into convulsions and die. The same rule seems to hold good in those minute creatures which is observable in larger animals, viz. that the larger kinds are less numerous than those which are smaller, while the smallest of all are found in such multitudes that there seem to be myriads for one of the others. They increase in size, like other animals, from their birth until they have attained their full growth ; and when deprived of proper nourishment, they in like manner grow thin and perish.

The consideration of these various orders of being has frequently given occasion for many just and pious observations ; no where, however, have we met with any which seem more judicious than those of the reverend author of the animal biography, to whom we acknowledge ourselves indebted for the remainder of this chapter.

It is one material use of the study of nature, to illustrate this greatest of all truths : " That there must be a God ; that he must be almighty, omniscient, and infinite in goodness ; and that, although he dwells in a light, inaccessible to any mortal eye, yet our faculties see and distinguish him clearly in his works." In these we are compelled to observe a degree of greatness far beyond our capacities to understand : we see an exact adaptation of parts composing one stupendous whole ; an uniform perfection and goodness that are not only entitled to our admiration, but that command from us the tribute of reverence, gratitude, and love, to the Parent of the Universe. Every step we tread in our observations on nature, affords us indubitable proofs of his superintendance : from these we learn the vanity of all our boasted wisdom, and are taught that useful lesson, humility : we are compelled to acknowledge our dependance on the protecting arm of God, and that, deprived of this support, we must that moment dissolve into nothing. Every object in the creation is stamped with the characters of the infinite perfection and overflowing benevolence of its author. If we examine, with the most accurate discrimination, the construction of bodies, and remark even their most minute parts, we see clearly a necessary dependance that each has upon the other : and if we attend to the vast concurrence of causes that join in producing the several operations of nature, we shall be induced to believe further, that the whole world is one connected train of causes and effects, in which all the parts, either nearly or remotely, have a necessary dependance on each other. We shall find nothing insulated, nothing dependant only on itself. Each part lends a certain support to the others, and takes in return a share of aid from them. Previously to entering farther into the subject, we will examine for a moment that part of every animal body called the eye, which, though one of the most conspicuous, is still the most surprising part of the body. Here we have exhibited to us nicety of formation, connections and uses that astonish us. We see it placed in a bony orbit, lined with fat, as an easy socket in which it rests, and in which all its motions readily take place. We find it furnished, among many others, with those wonderful contrivances, the iris, pupil, and different humours : and that incomprehensible mechanism the optic nerve, which affords to the brain, in a manner greatly beyond our conceptions, the images of external objects.

How admirable is the construction of the skeleton; every particular bone adapted peculiarly to the mode of life and habits of the animal possessing it. The muscular system is still more entitled to our wonder; and if we enter into examination of the viscera, the skin, and the other parts of the body, we can fix no bounds to our astonishment. When the anatomist considers how many muscles must be put in motion before any animal exertion can be effected: when he views them one by one, and tries to ascertain the precise degree to which each individual muscle must be contracted or relaxed, before the particular motion indicated can be effected, he finds himself lost in the labyrinth of calculations in which this involves him. When he farther reflects with the faculty of calling forth these incomprehensible energies, but that the most insignificant insect is vested with powers of a similar nature, he is still more confounded. A skilful naturalist has been able to perceive that in the body of the lowest caterpillar, which, in the common opinion, is one of the most degraded existences on this globe, there are upwards of two thousand muscles, all of which can be brought into action with as much facility, at the will of that insect, and perform their several offices with as much accuracy, promptitude, and precision, as the most perfect animal; and all this is done by that insect, with equal unconsciousness of the manner how, as the similar voluntary actions of man himself are effected! it would be no easy matter to make some men believe that the minute ephemera fly, whose life is but the continuance of a few hours, is in all its parts, for the functions it has to perform, as complete as the stately elephant that treads the forests of India for a century. Little do they suppose that even in its appearance, under the greatest magnifying powers, it is as elegant in every respect, and as beautifully finished as any of the larger animals! Unlike the paltry productions of man, all the minute parts of these works of God appear in greater perfection, and afford to us a greater degree of admiration, the more minutely and the more accurately they are examined. M. de Lisle saw, with a microscope, a very small insect, that, in one second of time, advanced three inches, taking five hundred and forty steps; and many of the discoveries of Lewenhock were even still more wonderful than this. Thus we evidently discern that all the operations of God are full of beauty and perfection, and that he is as much to be adored in the insect creation as in that of the elephant or lion. All the smaller creatures that serve us for food are particularly fruitful, and increasing in a much greater proportion than others: and in the bird kind it is extremely remarkable, that, lest they should fall short of a certain number of eggs, they are endowed with the power of laying others in the place of those that are taken away: but when their number is complete, they invariably stop. Here is an operation, like many others that we shall have to observe, much beyond our comprehension. How the mere privation of parts should cause a fresh production, is not easy to understand. The organization of an offspring should, in this case, almost seem a voluntary act of the female; but in what manner it is done, we are not only ignorant at present, but most probably shall ever remain so. Noxious animals multiply in general so slowly as never to become above the power of man. But whenever we find a great increase of these, we generally discover something given by Providence to destroy and counterbalance them. Many species devour each other, and

multitudes, that might otherwise, by their numbers, soon be of serious injury to mankind, afford food to other creatures. The insect tribes increase most rapidly. Some bring so many as two thousand young each: these would soon fill the air were they not destroyed by innumerable enemies.

The number of young produced by every animal invariably bears a certain proportion to the duration of its life. The elephant is said to live to the age of a hundred years or upwards: the female produces, therefore, but one young, and this does not arrive at maturity till it is 16 or 18 years old. Nearly the same thing may be remarked in the rhinoceros, and all the larger animals: but in most of the small ones, whose life is short, or whose increase is not so injurious to man as the increase of these would be, we always find the number of young much greater: many of the rat and other tribes produce several times in the year, and have from three or four, to ten and upwards at a litter. One species has never been found to increase so much as to exclude the others; and this singular harmony and just proportion has now been supported for several thousand years. "One generation passeth away, and another succeedeth," but all so equally as to balance the stock in all ages and in all countries. There is scarcely a plant that is not rejected as food by some animals, and ardently desired by others. The horse yields the hemlock to the goat; and monkshood, which kills the goat, is said not to injure the horse. Plants thus, which afford only the natural nourishment to some, are avoided by others as injurious. Poison is, indeed, only a relative term. Several plants that are noxious to man, are greedily devoured by some of the insect tribes. Thus does every creature enjoy its allotted portion; and all this was contrived for the wisest of purposes. Had the Author of Nature formed all the plants equally grateful to all kinds of animals, it must necessarily have happened that some species would have had an enormous increase; whilst others must have perished for want of food. But as every species must, of necessity, leave certain plants to certain animals, we find that all are able to obtain their due share of nourishment. All animals are calculated, in every respect, in the best possible manner, for the climates in which they have to live, and for their separate and peculiar mode of life. In the dreary northern regions, the dark animals become white, to evade, by their resemblance to snow, the quick sight of their enemies. Their clothing also becomes, during winter, nearly double what it is in the summer. In the torrid climates the sheep loses his fleece, and is covered with hair. The camel that traverses the burning sands of the deserts, is formed with soft spungy feet that the heat cannot crack: it has a reservoir for water, which enables it to resist for many days the attacks of thirst, in a country where water is seldom to be had; and it is content with browsing on such miserable food as is to be met with in its progress. If we attend to the contrivances of nature in the preservation of those animals, that would otherwise, in the colder climates, be deprived of food during the winter, we have an additional source of admiration. Most of the insect eating tribes either migrate to other countries, or become torpid during the rigorous season. Insects themselves, unable to bear the extreme cold, generally lie hidden within their cases, from whence, at the approach of spring, they burst, and fly forth. Some animals, as the beaver, squirrels, &c. that feed on such ve

getables as can be preserved through the winter, do not sleep, but live in their retreats on those provisions which nature has kindly taught them to store up in the summer.

The preservation of the young of all animals is not less wonderful than this. However savage may be the natural disposition of the parents, they are remarkably affectionate to their offspring, and provide every thing necessary for them with the utmost tenderness. However powerful their enemies may be, the dam will stand forward in their defence, and frequently die rather then yield them up. In no more than about three species, of all that our books have mentioned, are we able to trace any want of affection in the female parents, to whose care the young generally devolve: and even these may have arisen from the misapprehensions of the writers, for nature seems so uniform in this necessary and pleasing operation, that we cannot allow, without superabundant proof, even of exceptions. Quadrupeds, when they bring forth their young, have, secreted in receptacles provided for the purpose, a liquor which we call milk. With this, which is peculiarly easy of digestion, the young are nourished, till their stomachs are able to bear, and their teeth to chew, more solid food. Birds are destitute of this; their offspring, therefore, are able, as soon as hatched, to take into their stomachs such food as the parents collect for them. The insect tribes are generally brought to life in a nidus that itself affords them nourishment. Thus does an uniformly beautiful contrivance in rearing and nourishing their tender young, pervade every species of the animal creation.

Thus does the uniforn voice of nature proclaim aloud that "God is love:" and that "the merciful and gracious Lord hath so done his marvellous works, that they ought to be had in remembrance." The whole material system throughout heaven and earth, presents a varied scene rich in use and beauty, in which nothing is lost, and in which according to our former observations, the meanest and minutest creatures have their full designation and importance.

CHAPTER VIII.

MAN.——*His animal œconomy—Distinguishing characteristics—Original of the distinctions of colour that obtain among the human species—The natural disadvantages of man confirm the Mosaic account of his creation—Progress of society in manners, government, science, and religion.*

AMONG all the objects that surround us, there is none that so well deserves our attention as man. He is indeed born feeble, naked, and defenceless, and ever remains unequal to many animals in strength and swiftness; but the wide extent of his intellectual powers has furnished him with resources equal to his wants, and has even raised him to the empire of the world. He has learned to traverse the ocean, and in some instances the air, to make his observations on distant worlds, and what is of infinitely greater importance, to see the hand that has formed him, and expect in his presence immortal felicity.

In taking a general view of the formation of MAN, a circumstance of importance is his size, considered in relation to the force of gravitation. If the size of a man was much greater than it is, supposing his strength to be only in proportion, his motions would be much slower, and more laborious: nor would his increase of size be entirely compensated by a diminution in the force of gravitation, for this would expose him to inconveniences, on account of the various relations in which he stands to other objects, though he would gain in celerity what he would lose in force, yet his weakness would incapacitate him for acting with advantage on considerable masses of matter. On the whole, it should seem that neither an increase of size, with an increase of gravitation; nor a diminution of size, with a diminution of gravitation; nor an increase of either, with a diminution of the other, would in general so well suit the conveniences of man, and his relation to other beings, as the state in which he at present subsists. To examine minutely the structure of the human body, would lead us to transgress our necessary limits, we can therefore only describe the principal parts of which it consists, the functions it performs, and the senses with which it is furnished. The most remarkable parts of the body are bones, cartilages, muscles, tendons, ligaments, blood-vessels, lymphatics, nerves, and glands.

Bones are hard substances, which form the basis of the body. Cartilages are firm, smooth, elastic bodies, which cover the ends of the bones. Muscles are contractile organs, which are attached to bones, and perform the motions of the body, Tendons are tough cords, by means of which muscles are attached to bones. Ligaments are strong fibres or membranes, which connect bones to each other. Blood-vessels are membraneous flexible tubes, which convey the blood to and from the heart. Lymphatics are transparent tubes, which perform absorption. Nerves are white cords connected with the brain,

and are the instruments of sensation and voluntary motion. Glands are organic masses, destined for the purpose of secretion.

The bones consist of fibres, distributed in lamellæ or plates; these plates are not closely applied to each other, but, with the intervention of transverse fibres, constitute cells. The cells are distributed through the substance of all the bones, but are uniformly most remarkable in the centre, and on the surface of the harder bones are so small as not to be distinctly perceptible without the aid of glasses. The marrow which fills the cavities of the bones is a fat oily substance, contained in a fine and transparent membrane, which receives numerous blood-vessels, and is supported by the filaments of the reticular substance of the bones. If the different parts of a bone are observed it is found that where the diameter of the bone is the least, there the sides are thickest and most compact; where the diameter is greatest, which is in general towards the ends of the long bones, their structure is very cavernous throughout. The marrow pervades the whole substance of the bones, but is most remarkable in the middle part of the cavities of the long bones. Its appearance and nature also differ in different bones, or in the same bone in the progress of life. Thus the marrow is bloody in children, oily in adults, and thinner and more watery in aged people. At the time of birth, the bones are very imperfect, particularly those of the head; so that by being moveable in this part, and folding over each other during the time of delivery, an easier passage is procured for the infant. There are many projections from the bones, which in infancy are soft, but which in the adult state are bony; and the same tendency to the formation of bone increasing with our years, bones which were separate in the prime of life concrete in old age. In the decay of the body, however, the bones are diminished with the other parts, so as in extreme old age to weigh a third less than in the middle periods of life. To far the greater number of bones whose ends are not joined to other bones by immoveable articulation, are annexed, by the intervention of cartilage, smaller bones, called appendages. In young subjects these are easily separable, but in adults the point of conjunction is not very perceptible. The bones are furnished with a tough membrane, called the periosteum, which is spread on their surface, and the principal use of which seems to be to convey blood-vessels for their nourishment; these blood-vessels are very numerous, and remarkable in the bones in the infant state, but become gradually less so in the progress of life. The bones are united to each other, either moveably or immoveably. They are moveably articulated in three ways.

1. By a ball and socket, which admits of motion in all directions, as in the shoulder.
2. By a hinge, which allows motion in only two directions, as in the knee.
3. By a long process of one bone received into the cavity of another, which admits of a rotary motion, as in the articulation of the first and second vertebræ of the neck.

The immoveable articulation of bones is of two kinds:

1. Where numerous processes of two bones, like the teeth of saws, are mutually received into each other, as in the bones of the head.
2. By the growing together of the bones with the intervention of the cartilages, as in the union of the os sacrum, with the ossa innominata.

The ends of bones which move on each other are tipped with smooth cartilages : and the friction is still further diminished by a fluid, much more slippery than oil itself, which is called synovia. The moveable joints are also furnished with strong membranes, called ligaments, which pass from one bone to another, affording strength, and retaining the heads of the bones in their cavities. For the purposes of articulation, and the connection of muscles, bones are uneven on their surface, and have numerous elevations and depressions.

The bones, considered with relation to the motions of the body, are merely levers ; and the muscles are the immediate sources of all the motions of the animal machine The animal substance, which the anatomist calls muscle, is that which, in common language, passes under the name of the lean or flesh meat. The colour of the muscles, when they are first removed from the body, is red : this colour, however, is not essential to them, but is merely owing to the presence of blood, for when a muscle is cleansed from blood it appears white. In every recent muscle we may at first view distinguish two kinds of fibres ; the one kind appears red, and is the tohrough muscular substance : the other is tendinous, has a white silvery appearance, and has no power of contraction like the former. The tendinous substance is sometimes collected into a cord, but is very frequently expanded, so as by covering the surface of a muscle, or by pervading its substance, to afford a very extensive connection to muscular fibres. Muscles are generally connected at their two extremities to bones, by means of tendons ; the largest part of a muscle is called its belly, and is chiefly composed of contractile muscular fibres. That connection of a muscle which is least moveable is called its origin, that which is most moveable its insertion ; but these terms are in many cases merely relative, for a part of the body which is more fixed in one posture becomes less so in another. The fibres which compose a muscle run either longitudinally, transversely, obliquely, or circularly. If all the fibres which compose a muscle run in the same direction, it is called rectilinear ; radiated, if the fibres are disposed like radii ; penniform, if, resembling the plume of a feather, the fibres are situated obliquely with respect to the centre from which they proceed ; compound, if the fibres run in different directions. The majority of the large muscles of the body are compound. Most muscles have others opposed to them, which act in a contrary direction, and are called antagonists. Thus one muscle, or one set of muscles, bends a limb, another extends it ; one elevates a part, another depresses it ; one draws it to the right, another to the left. By these opposite powers the part is kept in a middle direction, ready to be drawn either one way or another, as particular muscles are thrown into a stronger action. The flexor muscles exceed the extensors in strength, and for this reason the easiest postures are those in which the body or limbs are moderately bent.

The different muscles of the human body are generally described as so many distinct and separate masses of flesh.

It is necessary, however, to remark, that when the anatomist comes to trace them in the subject, he finds the case far otherwise, as most neighbouring muscles are mixed and confused together by an intertexture of fibres ; as well as by being involved in cellular

substance. The cellular substance is a loose fibrous web, and when filled with air plainly exhibits its real structure, viz. that of cells communicating with each other. The uses of this substance are so important, that, in all probability, animals could not exist without it. By uniting the fibres of the muscles into compact masses, it secures them from becoming entangled with each other, and with the minute blood-vessels, lymphatics, and nerves, which are every where distributed among them. At the same time, however, that it connects together the muscles, and preserves them in their relative situations, it is sufficiently loose to give full play to all their motions; it serves also the purpose of a soft and compressible cushion, interspersed among the muscles, and, being always moist and slippery, renders their motions easy, and prevents friction The cellular substance also affords a lodgement to the fat, and, together with it, fills up the interstices between muscles, and adds to the beauty, evenness, smoothness, and softness of the surface of the body. The cellular substance is always considered as one of the integuments of the body.

The other integuments are the skin, properly so called, and the epidermis or scarf skin. The skin is properly nothing more than a condensed cellular substance, copiously furnished with blood-vessels, lymphatics, and nerves, as it within gradually becomes less dense, and is at length insensibly lost in the loose cellular substance. It covers the whole surface of the body, is tough, elastic, and forms, by means of the nerves, which terminate in it, particularly at the extremities of the fingers, where it is most sensible, the organ of torch. The cutis, when freed from the epidermis, which is its external covering, is found to be furnished with innumerable papillæ, which appear like minute granulations; their use is probably to increase the sensibility of the skin, as where it is most sensible they are most remarkable. The skin or cutis, however, not only covers the outer parts of the body, but becoming thinner and more delicate, enters and invests internally the various cavities which open on the surface. It is every where pierced with blood-vessels, and in some parts with the ducts of small glands, which are seated between the skin and the cellular substance, and which pour out an oily matter for the lubrication of the surface of the body. The epidermis, or scarf-skin, every where covers the true skin, which would otherwise, from its extreme sensibility, occasion much uneasiness from the friction to which the surface of the body is necessarily exposed. The epidermis consists of a mucous substance, which is placed next the true skin, and a dry, transparent, and in some measure horny substance, which is placed outwards. The mucous substance, called corpus mucosum, or rete malpighianum, is of a consistence between that of a solid and of a fluid, and is often treated of by anatomists as a distinct covering of the body. The colour of it varies according to the complexion. In fair people it is white, in brown people of a dusky hue, and in the Africans black.

Many anatomists chuse to call the hair, the nails, and the horns of animals, productions of the epidermis; by Malpighi and Rush the hairs were supposed to be continuations from the nerves; neither of which opinions, however, seems, in the judgment of Dr. Gregory, to be sufficiently proved, though the former appears by far the more probable. The hairs are distributed, more or less, remarkably over the whole body, except

on the palms of the hands and soles of the feet. They rise each of them from a separate oval bulb placed beneath the true skin, and lodged in the cellular substance, and they are surrounded by a sheath, which rises with them as far as the surface of the body. The nails are horny insensible bodies, formed of thin lamellæ or plates. They rise by a square origin from the last joints of the fingers and toes, and are hard where they are exposed to the air, but soft near their roots. The structure of the horns, hoofs, and claws of animals is very similar to that of our nails. A minute portion of a finger nail being submitted to the microscope, exhibited the same appearances as the epidermis. Both the nails and hair grow entirely from below, by a regular propulsion from their roots.

Nerves are white cords distributed from the brain over the whole body; they rise either immediately from the brain, or mediately from it by means of the spiral marrow, which is itself a continuation of the fibres of the brain, and might without impropriety be considered as the largest nerve in the body. Nerves are composed of threads of the smallness of which we have probably no adequate idea. To assist us in forming one, we must consider how uniformly nerves are distributed to even the most minute fibres of the body, and yet were they all conjoined, they would not make a cord of an inch diameter. It is deduced from actual observation, that each fibre in the retina of the eye, or expanded optic nerve, cannot exceed in diameter the 32,400th part of a hair.

The heart is a hollow muscle, included in a membraneous bag, called the pericardium. The principal part of the muscular substance of the heart forms two cavities called the ventricles. The posterior or left ventricle of these is much thicker, stronger, longer, and rounder than the other; the anterior or right ventricle is wider, shorter, and thinner. The septum, or that portion of muscular substance which is placed between the ventricles, seems chiefly to belong to the former, and gives the latter an appearance of being merely an appendage. At the basis of the heart are two cavities, which are each of them divided, by anatomists, into two parts, the sinus and the auricle; but as these together form one cavity, it will answer best the purpose of perspicuity to speak of them simply by the name of auricles. The auricles are composed of two membranes, with some muscular fibres. Like the ventricles, they are separated from each other by a septum, and one of them obtains the appellation of the anterior or right auricle, the other that of the posterior or left. Each of them communicates with the ventricle, which is placed next it, and which bears the same name.

Between the auricles and the ventricles of the heart are placed valves, as also at the mouths of the great arteries, which prevent the blood from passing in any other than the proper direction. The valves, which are placed between each of the auricles and ventricles, are turned inwards towards the latter cavities. The valves, situated at the entrance of the anterior ventricle, have three remarkable points, and are therefore called valvulæ tricuspides; those of the posterior ventricle terminate in two points, and, from being compared to a mitre, are called valvulæ mitrales. In each of the great arteries, which proceed from the ventricles the aorta and pulmonary artery, are seated three valves turned from the ventricles, and called semi-lunares. All these valves are elonga-

tions of the internal membrane of the part to which they belong. They are closely connected on that side from which the current of blood proceeds, and their other extremity is loose. When the blood, therefore, proceeds in its proper course, they are pressed close to the side of the vessel, and occasion no impediment; but when it is about to return in the contrary direction, they are raised from the side of the vessel, and meeting in the middle of its cavity, shut up the channel. The internal surface of the ventricles is extremely uneven, from a number of fleshy columns which rise from its inside, and some of which terminate by tendinous extremities in the valves of the heart, which they support, and enable to perform their office more effectually. Besides the connection, however, between the auricles and ventricles of the heart, each auricle communicates with a large vein, and each ventricle with a large artery. The use of the auricle is to receive the blood from the vein, and to discharge it into the cavity of the ventricle. The ventricle receives the blood from the auricle, and drives it forcibly into the artery.

When blood is first drawn from a vein, it appears to be an homogeneous red fluid: it then consolidates into one uniform mass; in a little time a yellowish watery liquor begins to separate from it, which is more or less in quantity, according to the state of the blood; the red mass, in the mean time, contracts greatly in its dimensions, expelling the watery liquor from its pores, and consequently increasing in firmness and density. This separation happens in the body after death, and produces those concretions in the heart, and large vessels, those adhesive masses called polypuses, which were formerly supposed to have existed during life, and sometimes to have been the immediate occasion of death. By agitation blood continues fluid; but a consistent fibrous matter adheres to the stick or instrument made use of to stir it, which, by repeated ablution in water, becomes white, and appears to be very similar to the fibres of animals obtained by washing away the other adhering matters. Received from the vein in warm water blood deposits a quantity of transparent filamentous matter, the red portion continuing dissolved in the water. On evaporating the fluid, a red substance, in the form of powder, or easily reducible to it, is left. As iron has been obtained in considerable quantities from this substance, the red colour of the blood has been, with some appearance of reason, attributed to this metal.

The vessels of the human body are either blood-vessels or lymphatics. The blood-vessels are membranous tubes, which convey the blood to and from the various parts of the body. They are divided into arteries and veins. The arteries pulsate, and convey the blood from the heart; the veins return it towards the heart, and do not pulsate. The large trunks, both of the arteries and veins, are near the heart; at a distance from it they are divided into numerous small branches, in a manner very similar to that in which the trunk of a tree is lost in its branches and twigs. The arteries are formed by the following tunics. The first is derived from the cavity, through which the artery passes. The second is a loose covering of a cellular substance, which contains smaller vessels, for the nourishment of that on which they run, and which in the large arteries often contains a considerable quantity of fat. The third is muscular, and is composed of several small arches of muscular fibres, many of which go to the formation of a circle,

Within this is a small cellular coat, which adheres closely to the former; and, lastly, there is a firm, smooth, and whitish coat, with which the circulating mass of fluids is in contact. The structure of the veins is the same as that of the arteries, but more delicate; the muscular coat is in them so thin, or of so pale a colour, as not to admit of demonstration in man, but is plainly seen in a vessel called the venaportarum of the ox. That veins, however, have muscular coats in all animals, is inferred from their contractile power. The venous system is far more capacious than the arterial. Arteries are commonly said to diminish in size, as they recede from the heart; but this is not the real state of the case. As long as an artery continues undivided, its diameter remains the same; and when it does divide, the area of the vessels formed by this division is always greater than the area of the artery from which they are produced; so that the artery may in truth be said to be increased. This rule holds equally with respect to the division of the great trunks of arteries, and the subdivisions of their branches. The trunks also of veins are always smaller than the sum of the smaller veins from which they are formed.

The larger trunks of blood-vessels are separate tubes, but their branches form various communications with each other, and these communications increase as the vessels become more minute, so as at length to form a web of vessels in the parts on which they are distributed. The advantages of this structure are very obvious, as by a communication of vessels each part may receive blood from many sources, and no part, therefore, suffers by the division of the blood-vessel which more particularly belongs to it, its advantages are like those of commerce among mankind, by which the effects of partial losses are guarded against by a mutual exchange of conveniences. The branches of arteries are in general sent off at much more acute angles than those of the veins, by which the passage of the blood through the arteries is the less impeded. The arteries have in general a corresponding vein placed near them; but to this rule there are several exceptions, which will be more particularly noticed in speaking of the venous system. The trunks of the veins, and almost all the arteries, are deeply seated; but the smaller veins are every where thickly distributed on the surface of the body, immediately below the skin. By this structure a passage is provided for the blood on the surface of the body, where the internal veins are so compressed by the action of muscles as not easily to transmit their contents. The external and internal veins communicate very freely.

Lymphatics are small pellucid vessels, which convey fluids perfectly, or very nearly, colourless. The lymphatics are of two kinds; those which take up fluids from the body in general, and those which receive the digested aliment from the intestines. The latter kind are called lacteals, and both of them terminate in a common trunk, the thoracic duct. The lymphatics have at least two coats, which are thin and transparent, but tolerably strong. They have also nerves and muscular fibres, as may be collected from their sensibility when inflamed, and from their power of contraction. They are furnished with valves, which are placed in pairs, and which are so numerous, that three or four of them often occur within the distance of one inch. From this circumstance they

are frequently called valvular lymphatic vessels, to distinguish them from the minute ramifications of the sanguiferous system, which also convey a colourless fluid. Lymphatics begin by extremely minute tubes from the whole surface of the body, from the cellular substance, from the cavities of the body, from all the glands, from all the viscera, and in general from every part of the system. It is now well ascertained, that not only water is absorbed by the lymphatics on the surface of the body, but many other substances. No lymphatics have been demonstrated in the brain; but from a variety of circumstances there can be very little doubt of their existence. All the lymphatics of the body pass through certain glands, which are connected with them. When the lymphatics approach these glands, they send some branches to neighbouring lymphatics; other branches pass over the surface of the glands, and others enter their substance, in which they are so minutely divided as to escape observation. A great number of these glands are placed at the upper part of the thigh, belonging to the lymphatics of the lower extremity; others are placed under the arm, belonging to those of the upper; and there are similar glands about the neck, and in various other parts of the body. It is at present disputed among anatomists, whether lymphatic glands are formed of cells or convoluted vessels; but the latter opinion seems to be more probable. Lymphatic or conglobate glands are of various sizes, from that of a small pea to that of a bean. They are commonly somewhat flattened; in young subjects they are found of a reddish or brown colour, but they become whiter in the progress of life. Their surface is shining, which is owing to a smooth dense coat, with which they are covered. These glands are said to be wanting in some animals, which yet have lymphatic vessels. The structure and uses of the organs concerned in the circulation of the blood have been already considered, and it was farther remarked that the heart of man is of a duplex construction, in other words, that it has two auricles and two ventricles. With a view to perspicuity, before we proceed to the circulation in the human body, it will be necessary to mention the structure of the heart in certain animals in which it is more simple.

In frogs, serpents, and other cold blooded-animals, the heart consists of only two cavities, an auricle and a ventricle, it is driven into the arteries, from the arteries it is received into the veins, and by the veins is again brought back to the auricle. This being well understood, it cannot be difficult to comprehend the course of the circulation in man, and the warm-blooded animals, in which the only difference is, that the heart being double, or consisting of four cavities, the blood performs two circles instead of one. From the anterior auricle the blood passes into the anterior ventricle; from the anterior ventricle it is conducted by the pulmonary artery to the lungs, and from the lungs, the pulmonary veins bring it back to the posterior auricle; from the posterior auricle it passes into the posterior ventricle; from the posterior ventricle it is carried to every part of the body, by means of the aorta and its branches, and thence is again brought back by the venæ cavæ to the anterior auricle, whence it proceeded. In this manner, throughout life, the blood is constantly performing two circles; a less between the heart and the lungs, and a larger between the heart and the rest of the body. The two auricle and ventricles are of equal capacity, and correspond in their contractions. From these circumstances it

is evident, that the same quantity of blood passes through the lungs in a given time, as through all the rest of the body, and, consequently, that the circulation must be much more rapid in the lungs than in any other parts. It is supposed that about two ounces of blood are thrown from each ventricle of the heart at every contraction. The heart, however, though the most remarkable, is not the only organ of circulation; since every vessel through which the blood passes assists, by its contractile powers. to propel its contents. The sudden contractions of the heart, by which the blood is thrown into the arteries, occasion their pulsation, which is most violent in the large trunks, gradually becomes less remarkable as they ramify and recede from the heart, and is not at all perceptible in the veins, which receive their blood from the arteries. The contraction of the ventricles, by which the blood is propelled from the heart, is called the systole; the dilation, by which the blood is received into them, the diastole.

The ends of the arteries are the beginnings of the veins, which uniting, as the arteries are divided, at length form large trunks, which generally correspond with the trunks of the arteries, from which, by the medium of smaller branches, they received their contents. But though all arteries terminate in veins, yet the minuteness of their ramifications, before this takes place, is various; while some transmit the red globules, others exclude them, and transmit nothing but serum. A circumstance contributing greatly to the progress of the blood in the veins is their valvular structure, fitting them for deriving assistance from pressure; and we find accordingly in the limbs, and wherever else any advantage could be obtained from this circumstance, that the veins are furnished with valves, while in the cavities of the body, where they are not so much pressed by the action of muscles, this part of their structure is wanting. The motion of the fluids of the valvular lymphatic system is quite distinct from the circulation of the blood. These vessels begin by open mouths which perform the office of absorption, and their contents are not derived, like those of the red veins, from the extremities of arteries; their fluids are therefore propelled, without any aid from the heart, by their own contractile powers. The most remarkable functions to which the circulation of the blood is subservient, are secretion, the nourishment of the body, and certain changes which the blood undergoes in its passage through the lungs. There is no function of the body which is more calculated to excite our astonishment and admiration than that of secretion. By secretion we see one fluid, the blood, modified more variously and more exquisitely than the human mind can easily conceive, or ever hope to explain; in one part, secreted fluids, varying in different races of animals according to their food, are endued with a power of dissolving the aliment, and fitting it for the nourishment of the body; in other parts, secretion furnishes fluids for lubricating the organs concerned in the various functions of the animal machine. In some animals the most powerful odours, in many the most deadly poisons, and in all, that wonderful fluid by which their race is perpetuated, are the products of secretion. So far are we from discovering the nature of secretion, and the causes of the different properties of the fluids which are secreted, that we in reality know little more of this function than the general outlines of the structure of the parts concerned in it. We see a gland, with an artery, vein, and excre-

tory duct connected to it, but whether the secreted fluid be formed by exudation through the coats of the minute arteries distributed in the gland, or whether it is poured out from the open extremities of arteries into small receptacles, and is thence received into the excretory duct, or in what other mode the change wrought on the blood conveyed to the gland is effected, we are entirely ignorant. Absorption is performed by a system of lymphatic vessels. Their appearance, structure, and course through the body, have been already described. The uses of the absorbents in the animal œconomy are of the most important nature. By the absorbents all the nourishment of the body is conveyed from the intestines towards the heart; and by the absorbents, those particles which have become useless in any of the organs, are taken up, conveyed into the mass of circulating fluids, and ultimately discharged from the body. The bones themselves afford evidence of the action of the absorbents, as their component particles are continually changing throughout life, and as all the bones lose considerably of their weight in extreme old age. At the same time, however, that their actual weight is lessened, their specific gravity is increased; for the bones of old people are thinner and more compact in their sides, and have larger cavities. By chemical analysis, the proportion of earth is found to be increased in the progress of life. The absorbents are particularly numerous in glands; and very probably have their influence in producing the phenomena of secretion. The fluids, which are secreted, for lubricating the joints and muscles, and for moistening the several cavities of the body, are continually renovated by the absorbents, which take up what is already effused, while more is supplied by the arteries. The uses of the glands connected with the lymphatic vessels are not well understood, but from their being universal, and from our not being able to find a single lymphatic vessel, which does not, in its progress towards the heart, pass through some of them, it may be concluded that their uses are very important. One of the purposes, however, which they serve, is, probably, to prevent any thing injurious, which may be taken up by the absorbents, from entering the mass of blood; and in this way the minute ramifications, into which the lymphatics are divided in their passage through these glands, may perform the office of a filter. There are several arguments which might lead us to believe, that the lymphatic glands belonging to the lacteals have some share in digestion, or for fitting the chyle for entering the mass of circulating fluids; but their influence in this respect is not proved, nor does it seem easy to ascertain it. Several hypothesis have been formed by ingenious men, with a view to explain the mode in which the absorbents act in taking their contents; but as they are but hypothesis, we shall pass them over in silence. As the absorbents are continually taking away the substance of the body, it was necessary that there should be organs, which, by furnishing fresh particles, might counterbalance their effects; and these organs are the arteries. It has been already observed that the arteries, for an important purpose, convey the blood to every part of the system; by means of the blood, however the arteries not only produce the secretions, but furnish matter to every exhausted organ of the body; and from one fluid, restore the lost particles of the bones, the muscles, and the nerves, or whatever other solids stand in need of repair. This office, however, of the arteries, pre-supposes

that there must be a source, from which they are themselves supplied with the substance they furnish to the other organs; and this leads to the consideration of the important function of digestion. Animals are powerfully admonished to repair the waste of their bodies by an aversion from the sensations of hunger and thirst, and a desire of that pleasure which attends the gratification of these appetites. Solid food, being taken into the mouth, is masticated by the teeth, and mixed with saliva and mucus, which by the pressure and action of the parts, are very copiously exuded. Thus softened and lubricated, the food is conveyed to the root of the tongue, and the lower jaw being now fixed by the shutting of the mouth, we are prepared to act with the muscles which pass from the bone of the lower jaw to that which supports the tongue, called the os hyoides. A convulsive action of these muscles suddenly draws forward the os hyoides, the root of the tongue, and the larnyx; the larnyx is enlarged, the food is forced into the gullet, and in its passage presses down the epiglottis, so as to prevent any thing from getting into the wind-pipe. The parts before thrown into action are now relaxed; the food is received by the gullet, and is regularly, but rapidly, conveyed to the stomach. Fluids are conveyed to the stomach in the same manner as solids. So perfect and exact is the action of the gullet in propelling its contents, that even air cannot elude the grasp, which is proved by our having the power of swallowing air, by taking a mouthful of it, and using the same efforts which we employ in swallowing our food. After the food has reached the stomach, it is still further softened, and at length reduced to a pulpy consistence, by means which we shall presently examine. It now passes through the pylorous, or right orifice of the stomach, into the duodenum, where it is retained for some time, and attenuated by the admixture of the bile from the liver, and the pancreatic juice from the pancreas. From the duodenum it passes into the jejunum and ileum, in which it is moved backwards and forwards by the muscular contraction of their coats, called their peristaltic motion. As it proceeds, its more fluid parts are continually taken up by the lacteals; and it consequently gradually becomes of a thicker consistence. From the small intestines it passes through the valve of the colon into the large. Here it probably undergoes still further changes, and more of its fluid parts are absorded by the lacteals. It is at length received by the end of the intestinal tube, called the rectum, and being of no further use, is discharged from the body. There are two different processes, which in general seem essential to digestion, viz. trituration and the action of a certain fluid or menstruum. All quadrupeds are furnished with teeth, by which they in some measure destroy the texture of their food before it passes into the stomach. The instrument of trituration in granivorous fowls, and which answers the purposes of the teeth of quadrupeds, is the gizzard, through which all their food passes, before it enters the organ, which may properly be denominated their stomach. Among fowls, however, there are some which have a stomach purely membraneous, as the eagle, the hawk, and birds of prey in general. These have neither gizzard nor teeth, but they are furnished with a sharp and crooked beak, which, by tearing their food to pieces, serves, in some measure, to prepare it for the action of the other instrument of digestion, a fluid endued with peculiar qualities, and which, as far as our observations extend, seems to

be in common to all animals. The principal instrument of digestion in most animals is, however, now generally supposed to be the gastric juice; a fluid which distils from certain glands, situated in the coats of the stomach, and mixes with the food as soon as it is received into it. Uninterrupted respiration being necessary to our existence, it is wisely ordained, that this function should be so far involuntary as not to require a continual and irksome attention. For other purposes, as that of speech, respiration is no less wisely submitted in some measure to our direction, so that within certain limits we can accelerate or retard it at pleasure. We are sufficiently prevented, however, from suspending respiration to such an extent as to interfere with other processes absolutely necessary to the support of life, by being subjected, whenever we cease to breathe, to a sensation inexpressibly distressing, and which compels us to use every effort in our power to inhale hair to the lungs. The thorax, or that bony case which surrounds and protects the lungs, is furnished with a number of muscles, some of which, by drawing the ribs upwards, enlarge its capacity, and others, by drawing them downwards, diminish it. Its capacity, however, is still more influenced by the muscular organ called the diaphragm, which from the breast bone and lower ribs passes obliquely downwards to the loins, and separates the thoratic from the abdominal viscera. By the contraction of the diaphragm, the abdominal viscera are pressed downwards and forwards, by which the lungs are permitted to expand themselves in the same direction; when the diaphragm is relaxed, and the abdominal muscles are thrown into action, a directly opposite motion takes place; the viscera of the abdomen are pressed upwards and backwards against the lungs, from which part of the air is consequently expelled. The air, which is to be considered as possessing many properties in common with other fluids, possesses this, that by its weight it enters where it is least resisted. Part of the resistance to the entrance of the air into the lungs being taken off by the action of the muscles dilating the thorax, it rushes in through the wind-pipe in the same manner as it rushes into the cavity of bellows, when the boards are separated from each other. Inspiration and expiration therefore are not performed by the lungs themselves, since air would be equally drawn into and expelled from the cavity of the thorax when deprived of lungs, supposing that the parts of the thorax could be made to perform their motions perfectly well after death. The lungs may, therefore, be compared to the cavity of the bellows filled with any downy substance, the bones of the thorax to the boards of the bellows, and the muscles of the thorax to the hands by which the bellows are moved. The chief uses of respiration, as far as our knowledge extends, are, first, To effect certain changes in the mass of blood; and, second, to produce animal heat.

We proceed now to treat of the senses, which are five: touch, taste, smelling, hearing, and vision. The organs of each of these senses are of a peculiar structure, and susceptible only of particular impressions. The sense of touch may be defined to be the faculty of distinguishing certain properties of the body by the feel. In a general acceptation the definition might, perhaps, not improperly, be extended to every part of the body possessed of sensibility, but it is commonly confined to the nervous papillæ of the true skin. The sense of taste is seated chiefly in the papillæ of the tongue, these little

roughnesses which are easily discovered by the touch, and are very apparent on the tongues of sheep. The variety of tastes seems to be occasioned by the different impressions made on the papillæ by the food. The different state of the papillæ with respect to their moisture, their figure, or their covering, seems to produce a considerable difference in the taste not only in different people, but in the same object in sickness and in health. The organ of the sense of smelling is the pituary membrane, that lines the internal surface of the nose and is overspread by the olfactory nerves. The air we draw in at the nostrils being impregnated with the effluvia of bodies, excites in us that kind of sensation we call smelling. As these effluvia, ftom their being exceedingly light and volatile, cannot be capable, in small quantities, of making any great impression on the extremities of the olfactory nerves, it was necessary to give considerable extent to the pituary membrane, that by this means a greater number of odoriferous particles might be admitted at the same time. In many quadrupeds the sense of smelling is much more extensive and delicate than it is in the human subject, and in the human subject it seems to be more perfect the less it is vitiated by a variety of smells. The organ of hearing is the ear, and its subject is sound. Sound is produced by the vibration of the parts of elastic bodies, which propagate their motions on all sides through the air by alternate condensations and rarefactions, and by successive going forward and returning of the particles. Those parts of the air which thus vibrate backwards and forwards are called pulses. The sense of hearing is occasioned by one of these pulses being collected by the funnel-like-shape of the external ear, and conveyed through a canal called the meatus auditorius, or the membranes of the drum. It is by experence only that we learn to distinguish by the ear whether a sonorous body be before or behind us, on our right hand or on our left. Dr. Sparman relates that when he first heard the roaring of a lion he did not know on what side to apprehend danger, as the sound seemed to proceed from the ground, and to enclose a circle of which he and his companions stood in the centre. The eye, which is the organ of vision, is nearly globular. It consists of several coats and humours. The two outer coats, one the scelerotica, and the cornea. The scelerotica is very white and opaque, and is joined at its interior edge to the cornea. The cornea is more convex than any other part of the globe, and derives its name from its transparency. Next within this coat is the choroides, which serve as a lining to the other, and join with the iris. The iris is composed of two sets of muscular fibres, the one of a circular form, which contracts the hole in the middle called the pupil, when the light would otherwise be too strong for the eye, and the other of radical fibres, tending every where from the circumference of the iris toward the middle of the pupil; which fibres, by their contraction, dilate and enlarge the pupil when the light is weak, in order to let in more of its rays. The last coat is only a fine expansion of the optical nerve, which spreads like net work all over the inside of the choroides, and is therefore called the retina; upon which are painted, as it were, the images of all visible objects by the rays of light which either flow or are reflected from them. Under the cornea is a fine transparent fluid like water, which is therefore called the aqueous humour. It gives a transparent figure to the cornea, and has the

same limpidity, specific gravity, and refractive power as water. At the back of this lies the chrystalline humour, which is shaped like a double convex glass: and is a little more convex on the back than on the fore-part. It converges the rays, which pass through it from every visible object to its focus at the bottom of the eye. This humour is transparent like crystal, is much of the consistence of hard jelly, and exceeds the specific gravity of water in the proportion of eleven to ten. At the back of the chrystalline lies the vitreous humour, which is transparent like glass, and is the largest of all in quantity, filling the whole orb of the eye, and giving it a globular shape. It is much of the consistency of the white of an egg, and very little exceeds the specific gravity and refractive power of water.

Our sight is the most perfect and most delightful of all our senses. It fills the mind with the largest variety of ideas, converses with its object at the greatest distance, and continues the longest in action without being tired or satiated with its proper enjoyment. The sense of feeling can indeed give us the idea of extension, figure, and all the other properties of matter which are perceived by the eye, except colours; but at the same time, it is very much straitened and confined in its operations, with regard to the number, bulk, and distance of its objects.

Though sight is justly considered as the noblest and most comprehensive of all our senses, yet it does not communicate so many perceptions to the infant as to the full grown man. Colour is for some time the only object of sight, and it is only, when assisted by experience, and the sense of touch, that it conveys to the mind any distinct ideas of the figure, magnitude, motion, or distance of external objects. A ray of light proceeding, as all rays do, in a straight line, must, however great its length, affect the eye, retina, and optic nerve, as if it were a single point. From this obvious and undeniable fact, Bishop Berkley predicted that a man born blind, who should be suddenly made to see, would at first perceive nothing without him, would distinguish neither the distance, size, figure, nor situation of external objects, that he would only experience new modifications of his mind until joining touch to sight, he formed a communication with the external world, and employing both senses at the same time, had learned the agreement between the visible and the tangible. This truth was fully proved by the case of a young man whom Cheselden cured of a cataract.

In order to actual sensation in any of the five ways we have been describing, an impression must be made on the external organ, thence communicated to the nerve, and by the nerve to the brain. The perceptions which are communicated by these senses, and subsist after the object which excited them is withdrawn, are called by Mr. Harris relicits of sensation. "When we view, says this author, some relicit of sensation reposed within us, without thinking of its rays, or referring it to any sensible object, this is fancy or imagination. When we view such relicit, and refer it withal to that sensible object which in time past was its cause and original, this is memory. Lastly, the road which leads to memory through a series of impressions, however connected, whether rationally or casually, this is recollection."

The ideas received into the mind by the senses and treasured up in the memory

and imagination, are the original materials of human knowledge. It must therefore be of importance to trace the progress of the mind in her various operations on these materials. The first of these operations appears to be that which logicians term simple apprehension. Having yesterday observed a tree or any other object, if we contemplate the idea of that tree to day as it remains in the imagination, without comparing it with any other idea, or referring it to any external object, we perform the operation which is called simple apprehension. Simple apprehension is somewhat different from conception, as the former denotes the contemplation of those ideas only which the mind by sensation has actually received from external objects, and the latter denotes the view not only of those ideas, but also of such as the mind fabricates to herself. Thus it seems better to say a man conceives a centaur, than to say that he apprehends a centaur. The operation of mind by which it collects general truths from particular ideas, is denominated abstraction.

Sensation, remembrance, simple apprehension, and conception, with every other active energy or passion of the mind, is accompanied with an inward feeling or perception of that energy or passion ; and that feeling or perception is called consciousness. Consciousness is the perception of what passes in a man's own mind at the instant of its passing there : nor can we see, hear, taste, smell, remember, apprehend, conceive, employ our faculties in any manner, enjoy any pleasure, or suffer any pain, without being conscious of what we are doing, enjoying, or suffering. Consciousness is only of things present ; and to apply it to things past is to confound it with memory, or reflection. It is to be observed that we are conscious of many things to which we give very little attention ; we can hardly attend to several things at the same time ; and our attention is commonly employed about that which is the object of our thought, and rarely about the thought itself. It is in our power, however, when we come to years of understanding, to give attention to our thoughts and passions, and the various operations of our minds. And when we make these the objects of our attention, either while they are present, or when they are recent and fresh in our memories, we perform an act of the mind which is properly called reflection. It is by consciousness that we immediately acquire all the knowledge which we have of mental operations ; but attentive reflection is necessary to make that knowledge accurate and distinct. Nearly the whole science of metaphysics is derived from reflection. We shall conclude these observations on the human mind by pointing out the different sources from which it derives the knowledge of truth. Truth is thus defined by Mr. Wollaston. "Those propositions are true which represent things as they are, or, truth is the conforming of those words or signs by which things are expressed to the things themselves." Though all our faculties (our senses, our memory, and our intellect) furnish materials for propositions, and are therefore all subservient to the investigation of truth ; yet the perception of truth, as it is in itself, is commonly ascribed to our rational faculties ; and these have, by Locke and others, been reduced to two, reason and judgment. The former is said to be conversant about certain truths, the other chiefly about probabilities. Some late philosophers of great merit, dissatisfied with this analysis of the intellect, have added to reason and judgment a third faculty, to which they have given the name of common sense, and of

which the proper object is such truths as neither admit nor stand in need of evidence. All these may, perhaps, after all, refer to but one intellectual power. Consciousness, intuition, experience, analogy, and testimony, are each of them different sources of evidence by which the reason, judgment, or common sense is determined. Consciousness we have treated of all ready. Intuitive evidence is that which arises from the comparison of two or more ideas or notions when their agreement or disagreement is perceived immediately without the intervention of any third idea or notion. Of this kind is the evidence of these propositions; one and four make five; things equal to the same thing, equal to one another; the whole is greater than any of its parts; and in a word, all the axioms of arithmetic and geometry. Every demonstration is built upon intuition, and consists of a series of axioms or propositions of the same kind with the first principle or truth from which the reasoning proceeds. The continued observation of the same event happening in the same or similar circumstances, is what we call experience; and it is the only evidence which we have for all the general truths in physic, even for those which we are apt to think intuitively certain. A proof from real experience can leave no doubt in the mind; an argument from analogy always must. In the one case we infer that two events of precisely the same nature, and in precisely the same circumstances, have been produced by the same kind of cause: in the other we infer that two events similar in both respects, though, for any thing we know, dissimilar in others, have been produced by the same kind of cause; and it is obvious that between these cases the difference is great. The Newtonian doctrine of the planetary motions is founded on analogy. The last source of evidence is testimony, or the report of men concerning events which have fallen under the cognizance of their senses. In every case where the fact recorded is in itself possible, and attributed to an adequate cause; where a competent number of witnesses had sufficient means of information, and are certainly under no inducement to deceive, testimony is complete evidence, however extraordinary the fact may be; because no fact which is known to have an adequate cause, can be so incredible as that a number of men of sound understanding, should act contrary to the fundamental principles of human nature, or be able, if so disposed, to dissolve associations which had been formed in the mind of each from his infancy, and form new ones all agreeing exactly with one another, but all contrary to truth. From testimony we derive all our knowledge of antient times, and indeed of every thing which has not come under the cognizance of our senses, and has not been deduced from the operations of our own minds.

However extensive the powers may be of which man is possessor, certain philosophers have endeavoured to level him to the rank of quadrupeds, while others have attempted to elevate certain of the brute creation to the same class with their reputed lords. The orang outang is ranged by Linnæus as congenerous with man; and some theorists have even considered him as the original stock of the human race, pretending that he has been the man of the woods for many ages before gardens were ever thought of. His claims to humanity are found on his being able to walk upright occasionally, being furnished with a competent share of muscles requisite for that purpose. The form of his heart, lungs, breast, brains, and intestines, are similar to those of men:

he can sit upright with great ease; shews more design in his plans than his associates in the forests; and can handle a stick on occasion with tolerable dexterity. His disqualifications are the following; the position of the foramen magnum occipitis, which is further backward in the human species, and the sockets of his lower jaw made to receive the cutting teeth of the upper, indicate his relation to the monkey breed. He has also thirteen ribs on each side; his arms, feet, and toes, are much longer than those of the human species, &c; and although his foot does not so closely resemble a hand as that of the ape, yet the polex pedis, or the great toe, is placed at a graeter distance from the other toes, which gives it the appearance and uses of a thumb. These differences indicate, that although the orang can occasionally act the two legged animal, yet he is much better qualified to walk on his fore feet, and to climb trees than the generality of the modern race of men. But an objection to his claims still weightier than any of the differences stated above, arises from his want of speech. For there is no nation of men however savage, that is destitute of speech; though individuals secluded from society may in time lose that faculty. No instances are known of ten or twelve men having been without a language; but upwards of thirty of the orang species have been found in a herd without shewing the smallest traces of this faculty. It has been suggested by Rousseau that they may have lost the power from their neglect of using it, but it is very singular that they alone should lose this power, and not that race of men to whom they are supposed to be so nearly related. This point, however, has been completely decided by the discoveries of Professor Camper, who in a paper in the Philosophical Transactions, has demonstrated, by an anatomical dissection of the organ of the voice, that articulation is rendered impossible in these animals in consequence of the structure of that organ. From the nature and situation of those parts in the orang (as well as in the ape and monkey,) he has proved that no modulation of the voice resembling human speech can be produced in those creatures; because the air passing through the rima glottidis is immediately lost in the ventricles or hollow bags in the neck, (which are sometimes united into one,) with which all these animals are furnished, and which have a communication with the mouth through the said rima or slit, so that the air must return from thence without any force or melody within the throat and mouth of those creatures.

While some authors have thus laboured to confound man with the monkey, others have asserted that the whole human race have not sprung from one original; but that as many species of men were at first created as there are now different colours to be found among them. The first point to be ascertained is what is the seat of colour, and this has been determined to be the mucous substance, which being of a different colour, &c. in different inhabitants of the globe, and appearing through the cuticle, or upper surface of the skin, gives them that various appearance which strikes us so forcibly in contemplating the human race. As this can be incontrovertibly proved, it is evident, that whatever causes co-operate in producing this different appearance, they produce it by acting upon the mucous substance; which from the almost incredible manner in which the cuticle is perforated, is as accessible as the cuticle itself. These causes are pro

bably those various qualities of things, which, combined with the influence of the sun, contribute to form what we call climate. For when any person considers that the mucous substance before-mentioned is found to vary in its colour as the climates vary from the equator to the poles, his mind must be instantly struck with the hypothesis, and he must adopt it without any hesitation, as the genuine cause of the phenomena. This fact of variation of the mucous substance, according to the situation of the place, has been clearly ascertained in the numerous anatomical experiments that have been made, in which subjects of all nations have come under consideration. The natives of many of the kingdoms of Asia are found to have their mucous substance black; those of Africa, situated near the line, of the same colour: those of the maritime ports of the same continent of dusky brown, nearly approaching to it: and the colour becomes lighter or darker in proportion as the distance from the equator is either greater or less. The Europeans are the fairest inhabitants of the world. Those situated in the most southern regions of Europe, have in their mucous substance a tinge of the dark hue of their African neighbours: hence the complexion prevalent among them is nearly of the colour of the pickled Spanish olive; while in this country, and those situated near the north pole it appears to be nearly, if not absolutely white. These are facts which anatomy has established; and we acknowledge them to be such that we cannot divest ourselves of the idea, that climate has a considerable share in producing a difference of colour. The only objection of any consequence that has ever been made to the hypothesis of climate is this, that people under the same parallels are not exactly of the same colour. But this is no objection in fact; for it does not follow that those countries which are at an equal distance from the equator should have their climates the same. Indeed nothing is more contrary to experience than this; climate depends upon a variety of accidents. High mountains in the neighbourhood of a place make it cooler, by chilling the air that is carried over them by the winds. Large spreading succulent plants, if among the productions of the soil, have the same affect; they afford agreeable cooling shades, and a moist atmosphere from their continual exhalations, by which the ardour of the sun is considerably abated. While the soil, on the other hand, that is of a sandy nature, retains the heat in an uncommon degree, and makes the summers considerably hotter than those which are found to exist in the same latitude where the soil is different. To this proximity of what may be termed burning sands, and to the sulphurous and metallic particles which are continually exhaling from the bowels of the earth, is ascribed the different degrees of blackness by which some African nations are distinguishable from each other though under the same parallels. To these observations we may add, that though the inhabitants of the same parallel are not exactly of the same hue, yet they differ only by shades of the same colour; or, to speak with more precision, that there are no two people in such a situation one of whom is white and the other black. To sum up the whole, suppose we were to take a common globe; to begin at the equator; to paint every country along the meridian line, in succession from thence to the poles, and to paint them with the same colour which prevails in the respective inhabitants of each, we should see the black with which we had been obliged to begin, insensibly changing

into an olive, and the olive through as many intermediate colours to a white: and if, on the other hand, we should complete any one of the parallels according to the same plan, we should see a difference, perhaps, in the appearane of some of the countries through which it ran, though the difference would consist wholly in shades of the same colour. The argument, therefore, which is brought against the hypothesis is so far from being an objection, that it may be considered as one of the first arguments in its favour; for if climate has really an influence on the mucous substance of the body, it is evident that we must not only expect to see a gradation of colour in the inhabitants from the equator to the poles, but also different shades of the same colour in the inhabitants of the same parallel. To this argument may be added one that is incontrovertible, which is, that when the black inhabitants of Africa are transported into colder, or the white inhabitants of Europe to hotter climates, their children born there are of a different colour from themselves; that is, lighter in the first, and darker in the second instance.

As we are men, and every thing is interesting which relates to man, the reader will probably feel himself gratified by a comprehensive view of the origin of the human species, and of the various gradations through which they have passed in their progress towards the refinements of highly civilized society. Such a view is offered us by Mr. Heron, a writer in the Encyclopedia Britannica, who avoiding the absurdities of visionary theorists, has reasoned on principles of unquestionable certainty, and delivered himself in language so perspicuous and elegant, that we need no apology for presenting it entire only abridging it a little to reduce it to our necessary limits.

"Some modern philosophers have fancied that the original progenitors of mankind were left entirely to themselves from the moment of their creation; that they wandered about for ages without the use of speech, and in the lowest state of savagism, but that they gradually civilized themselves, and at last stumbled upon the contrivance of making articulate sounds significant of ideas, which was followed by the invention of arts and sciences, with all the blessings of religion and legislation in their train. But this is a wild reverie, inconsistent with the phenomena of the human nature It is a well known fact, that a man blind from his birth, and suddenly made to [illegible] d not, by means of his newly acquired sense, discern either the magnitude or *figure* of distant objects, but would conceive every thing which communicated to him visible sensations, as inseparably united to his eye or mind. How long his sense of sight would remain in such an imperfect state we cannot positively say; but from attending to the visible sensations of infants, we are confident that weeks, if not months, elapse before they can distinguish one thing from another. We have, indeed, been told, that Cheselden's famous patient, though he was at first in the state which we have described, learned to distinguish objects by sight in the course of a few hours, or, at the most, of a few days; but admitting this to a certain extent to be true, it may easily be accounted for. The disease called a cataract seldom occasions total blindness; but let us suppose the eyes to have been so completely dimmed as to communicate no sensation whatever upon being exposed to the rays of light; still we must remember that he had long possessed the power of loco-

motion, and all his other senses in perfection. He was therefore well acquainted with many objects; and having been often told that the things which he touched would, upon his acquisition of sight, communicate new sensations to his mind, differing from each other according to the distance, figure, and magnitude of the objects by which they were occasioned, he would soon learn to infer the one from the other, and to distinguish near objects by means of his sight. The progenitors of the human race, however, if left to themselves from the moment of their creation, had not the same advantages. When they first opened their eyes they had neither moved, nor handled, nor heard, nor smelled, nor tasted, nor had a single idea or notion treasured up in their memories; but were, in all these respects, in the state of new born infants. Now we should be glad to be informed by these sages who have conducted mankind through many generations, in which they were mutum et turpe pecus, to that happy period when they invented language, how the first men were taught how to distinguish objects by their sense of sight, and how they contrived to live till this necessary faculty was acquired? It does not appear that men are like brutes, provided with a number of instincts which guide them blind-fold, and without experience, to whatever is necessary for their own preservation. On the contrary, all voyagers tell us, that in strange and uninhabited countries, they dare not venture to taste unknown fruits unless that those fruits are eaten by the fowls of the air. But without the aid of instinct, or some other guide equally to be depended upon, it is not in our power to conceive how men dropt from the hands of their Creator, and left from that instant wholly to themselves, could move a single step without the most imminent danger, or even stretch out their hands to lay hold of that food which we may suppose to have been placed within their reach. They could not for many days distinguish a precipice from a plain, a rock from a pit, or a river from the meadows in which it rolled. And in such circumstances how could they possibly exist, till their sense of sight had acquired such perfection as to be sufficient to all their necessary motions? Can any consistent theorist suppose that the God, whose goodness is so conspicuously displayed in all his works, could leave his noblest creature on earth, a creature for whose comfort alone many other creatures seem to have been formed, in a situation so forlorn as this, where his immediate destruction appears to be inevitable? No! This supposition cannot be formed, because mankind still exist. Will it then be said that when God formed the first men, he not only gave them organs of sensation, and souls capable of arriving, by discipline, at the exercise of reason, but that he also impressed upon their minds adequate ideas and notions of every object in which they were interested, brought all their organs, external and internal, at once to their utmost possible state of perfection, taught them instantaneously the laws of reasoning, and, in one word, stored their minds with every branch of useful knowledge? This is indeed our own opinion, and it is perfectly agreeable to what we are taught by the Hebrew law-giver. When God had formed Adam and Eve, Moses does not say that he left them to acquire, by slow degrees, the use of their senses, and reasoning powers, and to distinguish as they could fruits that were salutary from those that were poisonous! No; he placed them in a garden, where every tree but one bore fruit fit for food; he warned them particularly

against the fruit of that tree; he brought before them the various animals which roamed through the garden; he ranged those animals into their proper genera and species; and by teaching Adam to give them names, he communicated to the first pair the elements of language. This condescension appears in every respect worthy of perfect benevolence; and indeed without it the helpless man and woman could not have lived one whole week. It cannot be supposed that amidst so much useful instruction the gracious Creator would neglect to communicate to his rational creatures the knowledge of himself; to inform them of their own origin, and the relation in which they stood to him; and to state in the plainest terms the duties incumbent on them in return for so much goodness. Thus it appears that mankind, in the very infancy of their existence, were not destitute of the advantages of reason, of language, and of religion."

"Physical causes exert, though indirectly, a mighty influence in forming the character, and directing the exertions of the human race. From the information of Moses we gather, that the first societies of men lived under the patriarchal form of government, and employed themselves in the cultivation of the ground, and the management of flocks. As we know that mankind, being subjected to the influence of physical and moral causes, are no less liable of degeneracy than capable of improvement, we may easily conceive, that though descending all from the same original pair, and though enlightened with much traditionary knowledge relative to the arts of life, the order of society, moral distinctions and religious obligations; yet as they were gradually, and by various accidents, dispersed over the earth, being removed to situations in which the arts with which they were acquainted could but little avail them, where industry was overpowered, or indolence indulged by the severity or profusions of nature, they might degenerate and fall into a condition almost as humble and precarious as that of the brutal tribes."

"If then we are desirous of surveying society in its rudest form, we must look not to the earliest period of its existence, but those districts of the globe where external circumstances concur to drive them into a state of stupidity and wretchedness. Thus in many places of the happy clime of Asia, which a variety of antient records concur with the sacred writings in representing as the first peopled quarter of the globe, we cannot trace the form of society backwards beyond the shepherd state. In that state, indeed, the bonds which connect society extend not to a wide range of individuals, and men remain for along period in distinct families; but yet that state is highly favourable to knowledge, to happiness, and to virtue. Again, the torrid and the frozen regions of the earth, through probably peopled at a later period, and by tribes sprung from the same stock with the shepherds of Asia, have yet exhibited mankind in a much lower state. It is in the parched desarts of Africa, and the wilds of America, that human beings have been found in a condition approaching the nearest to that of brutes."

We may, therefore, with some propriety, desert the order of time, and take a view of the different states through which philosophers have considered mankind as advancing, beginning with that of rudeness, though we have shewn that it cannot have been the first in the progress.

"Where the human species are found in the lowest and rudest state, their rational and

moral powers are very faintly displayed ; but their external senses are acute, and their bodily organs active and vigorous. Hunting and fishing are then their chief employments, on which they depend for support. During that portion of their time which is not spent in these pursuits, they are sunk in listless indolence. Destitute of foresight, they are roused to active exertion only by the pressure of immediate necessity, or the urgent calls of appetite. Accustomed to endure the severity of the elements, and but scantily provided with the means of subsistence, they acquire habits of resignation and fortitude, which are beheld with astonishment by those who enjoy the plenty and indulgence of cultivated life. But in this state of want and depression, when the powers and possessions of every individual are scarce sufficient for his own support, when even the calls of appetite are repressed because they cannot always be gratified, and the more refined passions, which either originate from such as are merely animal, or are intimately connected with them, have not yet been felt, in this state all the milder affections are unknown ; or if the breast is at all sensible to their impulse, it is extremely feeble. Husband and wife, parent and child, brother and brother, are united by the weakest ties. Want and misfortune are not pitied Why, indeed, should they, where they cannot be relieved ? It is impossible to determine how far beings in this condition can be capable of moral distinctions. One thing certain is, that in no sate are the human race entirely incapable of these. If we listen, however, to the relations of respectable travellers, we must admit that human beings have sometimes been found in that abject state where no proper ideas of subordination, government, or distinction of ranks could be formed. No distinct notions of deity can be here entertained. Beings in so humble a condition cannot look through the order of the universe, and the harmony of nature, to that Eternal Wisdom and goodness which cotrived, and that Almighty Power which brought into existence, the system of things. Of arts they must be almost totally destitute. They may use some instruments for fishing or the chase ; but these must be extremely rude and simple. If they be acquainted with any means to shelter them from the inclemency of the elements, both their houses and cloathing will be aukward and inconvenient. But human beings have not been often found in so rude a state as this. Even those tribes which we denominate savage, are for the most part farther removed from mere animal life. They generally appear united under some species of government, exercising the powers of reason, capable of morality, though that morality be not always very refined ; displaying some degree of social virtues, and acting under the influence of religious sentiments. Those who may be considered as but one degree higher in the scale than the stupid and wretched beings whose conditions we have surveyed, are to be found still in the hunting and fishing state : but they are farther advanced towards social life, and are become more sensible to the impulse of social affection. By unavoidable intercourse in their employments, a few individual hunters, or fishers, contract a certain degree of fondness for each others company, and are led to take some part in each others joys and sorrows ; and when the social affections, thus generated, begin to exert themselves, all the other powers of the mind are at the same time called forth, and the circumstances of the little society are immediately improved. We behold its mem

bers in a more comfortable condition, and find reason to view the human character with more complacency and respect. Huts are now built, more commodious cloaths are fashioned, instruments for the annoyance of wild beasts, and even of enemies, are contrived; in short, arts and science, and social order, and religious sentiments and ceremonies, now make their appearance in the rising society, and serve to characterize it by the particular form which distinguishes each of them. But though social order is no longer unknown nor unobserved, yet the form of government is still extremely simple, and its ties are but loose and feeble. It will, perhaps, bear some resemblance to the patriarchal; only all its members are on a more equal footing, and at the same time less closely connected than in the shepherd state, to which that form of government seems almost peculiar. The old men are treated with veneration; but the young are not entirely subject to them. They may listen respectfully to their advice; but they do not submit to their arbitrary commands. Where mankind are in the state of hunters and fishers, where the means of subsistence are precariously acquired, and prudent foresight does not prompt to accumulate much provision for the future, no individual can acquire comparitive wealth. As soon as the son is grown up he ceases to be dependent on his father, as well as on the society in general. Difference of experience, therefore, constitutes the only distinction between the young and the old; and if the old have experience, the young have strength and activity. Here then, neither age nor property can give rise to any striking distinction of ranks. All who have attained to manhood, and are not disabled by unusual deficiency of strength or agility, or by the infirmities of old age, are on an equal footing; or if any one possess a pre-eminence over the rest, he owes it to superior address or fortitude. The whole tribe deliberate; the old give their advice; each individual of the assembly receives or reject it at his pleasure, (for the whole body think not of exercising any compulsatory power over the will of individuals;) and the warrior who is most distinguished for strength, address, and valour, leads out the youth of the tribe to the chase, or against the enemy. War, which in the former stage did not prevail, as they, who were strangers to social sentiments, were, at the same time, scarce capable of being enemies, now first begin to depopulate the thinly inhabited regions where these hunters and fishers pursue their prey. They are scattered, possibly in scanty and separate tribes, over an immense tract of country; but they know no medium between the affection which brethren of the same tribe bear to each other, and the hatred of enemies. Though thinly scattered over the earth, yet the hunting parties of different tribes will sometimes meet as they range the forests: and when they meet, they will naturally view each other with a jealous eye; for the success of the one party in the chase may cause the other to be unsuccessful; and while the one snatches the prey, the other must return home to all the pangs of famine. Inveterate hostility will, therefore, long prevail among neighbouring tribes in the hunting state."

"If we find them not incapable of social order, we may naturally expect that their conduct will be influenced by some sentiments of religion. They have at this period ideas of superior beings. They also practise certain ceremonies to recommend them to those beings: but both their sentiments and ceremonies are superstitious and absurd."

But we may now carry our views a little forward, and survey human life as approaching somewhat nearer to a civilized and enlightened state. As property is acquired, inequality and subordination of ranks necessarily follow; and when men are no longer equal, the many are soon subjected to the will of the few. But what gives rise to these new phenomena is, that after having often suffered from the precariousness of the hunting and fishing state, men begin to extend their cares beyond the present moment, and to think of providing some supply for future wants. When they are enabled to provide such a supply, either by pursuing the chase with new eagerness and perseverence, by gathering the spontaneous fruits of the earth, or by breeding tame animals; these acquisitions are at first the property of the whole society, and distributed from a common store to each individual according to his wants. But as various reasons will soon concur to convince the community that by this mode of distribution industry and activity are treated with injustice, while negligence and indolence receive more than their due, each individual will in a short time become his own steward, and a community of goods will be abolished. As soon as distinct ideas of property are formed, it must be unequally distributed, and as soon as property is unequally distributed there arises an inequality of ranks. Here we have the origin of the depression of the female sex in rude ages, of the tyrannical authority of parents over their children, and perhaps of slavery. The women can not display the same perseverence, or activity, or address as the men in pursuing the chace. They are, therefore, left at home, and from that moment are no longer equals, but slaves and dependants, who must subsist by the bounty of the males, and must therefore submit with implicit obedience to all their capricious commands. Even before the era of property the female sex were viewed as inferiors; but till that period they were not reduced to a state of abject slavery. In this period of society new notions are formed of the relative duties. Men now become citizens, masters, and servants; husbands, parents, &c. It is impossible to enumerate all the various modes of government which takes place among the tribes who have advanced to this stage; but one thing is certain, that authority of the few over the many is now first established, and the rise of property first introduces inequality of ranks. In one place we shall perhaps find the community subjected, during this period, to the will of single persons; in another, power may be lodged in the hands of a number of chiefs; and in a third, every individual may have a voice in creating public officers, and in enacting laws for the support of public order. But as no code of laws is formed during this period, justice is not very impartially administered, nor are the rights of individuals very faithfully guarded. Many actions which will afterwards be considered as heinously immoral, are now considered as praise-worthy or indifferent. This is the age of hero-worship, and of household and tutelary gods; for it is in this stage of society that the invention of arts, which gave rise to that worship, contributes most conspicuously to the public good. War too, which we considered first as beginning to savage the earth during the former period, and which is another cause of the deification of dead men will still prevail in this age, and be carried on with no less ferocity than before, though in a more systematic manner."

"Languages are not yet copious, and therefore speech is figurative, expressible, and forcible. The tones and gestures of nature not being yet laid aside, as they generally are from regard to discourse in more polished ages, give a degree of force and expression to the harangues of the rustic or savage orator, which the most laborious study of the rules of rhetoric and elocution could not enable a more polished orator to display. But let us advance a little farther, and contemplate our species in a new light, where they will appear with greater dignity and amiableness of character. Let us view them as husbandmen, citizens, and legislators. The labours of the husbandman succeed in regular rotation through the year. Each season with him has its proper employments: he therefore must exert active persevering industry; and in this state we often find the virtues of rdue and polished ages united. This is the period where barbarism ends and civilization begins."

"The husbandman has not time to fashion his instruments, to prepare his clothes, to build his house, to manufacture household utensils, or to tend those tame animals which he continues to rear. Those different departments, therefore, now begin to employ different persons; each of whom dedicates his whole time and attention to his own particular occupation. Before every individual practised all the arts that were known as far as was necessary for supplying himself with the conveniences. Now he confines himself to one or to a few of them; and in order to obtain a necessary supply of the productions of those arts which he does not cultivate himself, he gives in exchange a part of the productions of his own labours. Here we have the origin of commerce. After continuing, perhaps for some time in this state, as arts and distinctions multiply in society, the exchange of one commodity for another is found troublesome and inconvenient. It is ingenuously contrived to adopt a medium of commerce, which being estimated not by its intrinsic value, but by a certain nominal value, which it receives from the society among whom it is used, serves to render the exchange of property, which is so necessary for the purposes of human life, easy and expeditious. Wherever metals have been known they appear to have been adopted as the medium of commerce almost as soon as such a medium began to be used: and this is one important purpose for which they serve; but they have still more important uses. Almost all the necessary arts depend upon them. Where the metals are known, agriculture is practised, and the necessary arts are distributed among different orders of artizans, civilization and refinement, if not obstructed by some accidental ciscumstance, advance with a rapid progress."

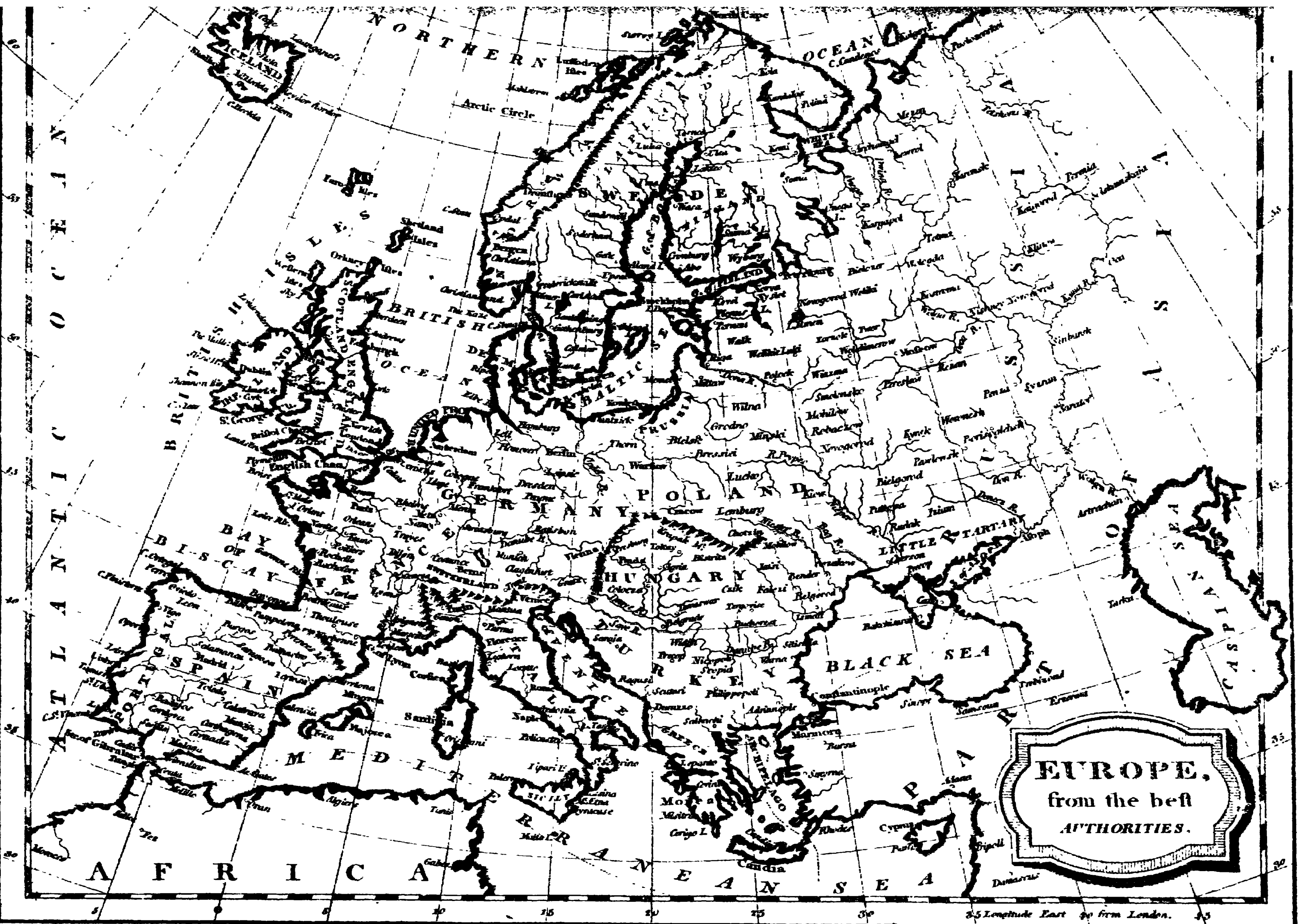
"Agriculture, considered in itself, is not directly favourable to refinement of manners or to the fine arts. The conversation of shepherds is generally supposed to be far more elegant than that of husbandmen; but though the direct and immediate effects of this condition of life be not favourable to the fine arts, yet indirectly it has a strong tendency to promote their improvemont. Its immediate influence is extremely favourable to the necessary and useful arts; aud these are no less favourable to the fine arts. One of the noblest changes which the introduction of the arts by agriculture produces on the form and circumstances of society, is the introduction of regular government and laws. In tracing the history of antient nations, we scarce ever find laws introduced at an early

period. Minos, Solon, and Lycurgus, do not appear to have formed codes of wisdom and justice for regulating the manners of their countrymen, till after the Cretans, the Athenians, and even the Lacedemonians, had made some progress in agriculture and the useful arts. Religion under all its various forms, has in every stage of society a mighty influence on the sentiments and conduct of men; and the arts cultivated in society have some influence on the system of religious belief. One happy effect which will result from the invention of arts, though perhaps not immediately, will be to render the deities more benevolent and amiable, and in the rites of their worship more mild and humane. The female sex in this period generally find the yoke of their slavery somewhat lightened. Men now become easier in their circumstances; the social affections assume stronger influence over the mind; plenty, and security, and ease, at once communicate both delicacy and keenness to the sensual desire. All these circumstances concur to make men relax, in some degree, that tyrannic sway by which they before depressed the softest sex. The foundation of that empire where beauty triumphs over both wisdom and strength now begins to be laid. Such are the effects which history warrants us to attribute to agriculture and the arts; and such the outlines of the character of that which we reckon the fourth stage in the progress of society from rudeness to refinement."

"Let us advance one step farther. We have not yet surveyed mankind in this most polished and cultivated state. Society is rude at the period when the arts first begin to shew themselves in comparison of that state to which it is raised by the industrious cultivation of them. The neighbouring commonwealths of Athens and Lacedemonia afford us a happy opportunity of comparing this with the former stage in the progress of society. The chief effect produced by the institutions of Lycurgus seems to have been to fix the manners of his countrymen for a considerable period in that state to which they had attained in his days. Spartan virtue has been admired and extolled in the language of enthusiasm: but in the same manner has the character and condition of the savage inhabitant of the wilds of America been preferred by some philosophers to the virtues and the enjoyments of social life in the most polished and enlightened state. The Spartans in the days of Lycurgus had begun to cultivate the ground, and were not unacquainted with the useful arts. They must soon have advanced further had not Lycurgus arisen and by effecting the establishment of a code of laws, the tendency of which appears to have been, in many particulars, directly opposite to the designs of nature, retarded their progress towards complete civilization and refinement. The history of the Lacedemonians, therefore, while the laws of Lycurgus continued in force, exhibits the manners and character of a people in that which we have denominated the fourth stage in the progress of society. But if we turn our eyes to their neighbours the Athenians, we behold in their history the natural progress of opinions, arts, and manners. Commerce with foreign nations, skill in the useful arts, and a taste for science, mutually aid each other, and conspire to promote the improvement of the fine arts. Hence magnificent buildings, noble statues, paintings expressive of life, action, and passion; and poems, in which imagination adds new grace and sublimity to nature, and gives the appearance of social life more irresistible power over the affections of the heart. Hence

are moral distinctions more carefully studied, and the rights of every individual, and every order in society better understood, and more accurately defined. Moral science is generally the first scientific pursuit which strongly attracts the attention of men. Law-givers appear before geometricians and astronomers. Some particular circumstance may cause these sciences to be cultivated at a very early period. In Egypt the overflowing of the Nile caused geometry to be early cultivated. Causes no less favourable to the study of astronomy concurred to recommend that science to the attention of the Chaldeans long before they attained to the height of refinement. But in general we find that the laws of morality are understood, and the principles of morals are enquired into before men make any considerable progress in physical science, or ever prosecute it with any degree of keenness. Accordingly when we view the state of literature in this period, for it is now become an object of so much importance as to force itself on our attention, we perceive that poetry, history, and morals, are the branches chiefly cultivated. Arts are generally casual inventions, and long practised before rules and principles, on which they are founded, assume the form of science. But morality, is considered as an art, is that art which men have soonest and most constantly occasion to practise. Besides, we are so constituted by the wisdom of nature, that human actions, and the events which befal human beings, have more powerful influence than any other object to engage and fix our attention. Hence we are enabled to explain why morality, and those branches of literature more immediately connected with it, are almost always cultivated in preference to physical science. Though poetry, history, and morals be pursued with no small eagerness and success in that period of society which we now consider, we need not therefore be greatly surprized that natural philosophy is neither very generally, nor very successfully, cultivated. Were we to consider each particular in that happy change which is now produced in the circumstances of mankind, we should be led into a too minute, and, perhaps, unimportant detail. This is the period when human virtue and human abilities shine with most splendour. The charms of social intercourse are known and relished, but domestic duties are not yet deserted for public amusements. The female sex acquire new influence, and contribute much to refine and polish the manners of their lords. Religion now assumes a milder and more pleasing form. The system of theology produced in former ages still remains; but only the mild and amiable qualities of the deities are celebrated, and none but the gay, humane, and laughing divinities are worshipped. Philosophy also teaches men to discard such parts of their religion as are unfriendly to good morals, and have any tendency to call forth or cherish unsocial sentiments in the heart. War, for in this period of society enough of causes will arise to arm one nation against another, war, however, no longer retains its former ferocity; nations no longer strive to extirpate one another, to procure redress for real or imaginary injuries, to humble, not to destroy is now its object. The interests of society are so well understood, that the few, in order to preserve their influence over the many, find it necessary to act rather as the faithful servants than imperious lords of the public. Though the liberties of a nation in this state be not accurately defined by law, nor their property guaranteed to them by any legal institution

yet their governors dare not violate their liberties, nor deprive them wantonly of their properties. This is truly the golden age of society: every trace of barbarism is entirely effaced; and vicious luxury has not yet begun to sap the virtue and the happiness of the community. Men live not in listless indolence, but the industry in which we are engaged is not of such a nature as to overpower their strength or exhaust their spirits. The social affections have now the strongest influence on men's sentiments and conduct. But human affairs are scarce ever stationary. The circumstances of mankind are almost always changing, either growing better or worse. Their manners are ever in the same fluctuating state. They either advance towards perfection or degenerate. Scarce have they attained that happy period in which we have just contemplated them, when they begin to decline, till they, perhaps, fall back into a state nearly as low as that from which we supposed them to have emerged. Instances of this unhappy degeneracy occur more than once in the history of mankind, and we may finish this short sketch of the history of society by mentioning in what manner this degeneracy takes place. Perhaps, strictly speaking, every thing but the simple necessaries of life may be denominated luxury; for a long time, however, the welfare of society is best promoted while its members aspire after something more than the mere necessaries of life. As long as these superfluities are to be obtained only by active and honest exertion; as long as they only engage the leisure hours, without becoming the chief objects of pursuit, the employment which they give to the faculties is favourable both to the virtue and happiness of the human race. The period arrives, however, when luxury is no longer serviceable to the interests of nations, when she is no longer a graceful, elegant, active form, but a languid, overgrown, bloated carcase. It is the love of luxury which contributed so much to the civilization of society that now brings on its decline; arts are cultivated and improved and commerce extended till enormous opulence be acquired; the effect of opulence is to awake the fancy to conceive ideas of new and capricious wants, and to influence the breast with new desire. Here we have the origin of that selfishness which, operating in conjunction with caprice, and the violence of unbridled passions, contribute so much to the corruption of virtuous manners. Selfishness, caprice, indolence, effeminacy all join to loosen the bands of society to bring on the degeneracy both of the useful and fine arts, to banish at once the mild and the austere virtues, to destroy civil order and subordination, and to introduce in their room anarchy and despotism."



Published as the Act directs by C. Brightly & T. Kinnersly Bungay Suffolk August 24th 1805.

VIEW OF THE WORLD.

BOOK I.

EUROPE.

CHAPTER I.

EUROPE.——*Its boundaries, mountains, rivers, productions, inhabitants, progress of society.*

EUROPE is bounded by Asia on the east; by the Mediterranean on the south; by the Atlantic on the west; and by the Frozen ocean on the north. Trace the river Kara from its mouth to the Ouralian hills, take these mountains for your guide till they conduct you to the Wolga, follow the course of the Wolga till it approaches the Don, then pass to that river, and descend with its stream to the sea of Azoph, and you will have described, with tolerable exactness, the eastern boundaries of Europe. These boundaries do not indeed appear to have been fixed with precision, nor is that a matter of very great importance, since all the countries, for many leagues on each side of them, have been long subject to the same mighty empire. The sea of Azoph is a large lake communicating with the Black sea. The Black sea is also a lake, but of still wider extent, and is united to the Archipelago by means of the straits of Constantinople, the sea of Marmona, and the Dardanelles. The Archipelago is, as its name imports, a sea intercepted with islands; of which the most remarkable is Candia or Crete. We now enter the Mediterranean, which, from Constantinople to the confines of Egypt, is the boundary between Europe and Asia; and, from the confines of Egypt to Gibraltar, separates Europe from Africa. The Mediterranean has three great inlets into the continent of Europe, and thus, with the assistance of the Black sea and the Atlantic, forms three celebrated peninsulas, Turkey, Italy, and Spain. The first of these inlets is the Archipelago already described; the second is the gulf of Venice, which visits Turkey, Germany, and Italy; the third extends along the shores of Italy, France, and Spain, contains the islands of Sicily, Sardinia, Corsica, Minorca, Majorca, and Ivica, and receives, in different parts of it, the denominations of the Tyrhene sea, the gulf of Lyons, and the Mediterranean. It is supposed by some eminent geologists, that the Black sea was formerly separated from the Mediterranean, and the communication which exists between them was the result of some catastrophe subsequent to the deluge.

"The Mediterranean, (says Mr. Kirwan) before its union with the Black sea and the ocean, was most probably a bason, much narrower and shallower than at present; for though it received several considerable rivers, the Nile, the Rhone and the Po, yet since, even now, the evaporation from its surface is sufficient to prevent it from overflowing, notwithstanding that the Ocean on the one side, and the Euxine on the other, flow into it, we may well suppose that, when it communicated with neither, evaporation kept its level much lower: when, therefore, by the rupture of the Thracian isthmus on the one side, and of the African, which joined Ceuta with Gibraltar, on the other, the water of both were poured in upon it, an immense pressure took place on its bed, under which it sunk, and fell into the inferior cavity of the globe; during this tremendous tumult the islands of Sicily, Sardinia, Corsica, and those of the Archipelago, were torn off, and Italy was lengthened to its present shape. The neighbouring shores of France and Spain, and more especially those of Africa, as being much lower, and those of Greece and Asia, must have been inundated to a great extent; and hence the saline substance, still existing in the adjacent parts of Africa, &c."

"Passing through the strait of Gibraltar, we enter the Atlantic ocean, which, as it extends along the coast of Europe, is called by a considerable variety of names. Between cape Finisterre and Brest it forms the bay of Biscay, and completes the peninsula of Spain. Proceeding northward, it is interrupted by the British isles, and has two inferior branches; one of which is denominated St. George's channel, or the Irish sea, and divides Great Britain from Ireland; the other taking in succession the names of English channel, straits of Dover, German ocean, and North sea, separates our island from France, Holland, Germany, Denmark, and Norway. The separation of the British isles from the continent, and from each other, is, by some, attributed to earthquakes, which they suppose to have taken place more than 3600 years since, and to have been remote consequences of the deluge. Between Denmark and Norway is a narrow winding sea, called the Scaggerac, which, by means of the Sound, and the great and little belts, communicates with the Baltic, and completes the peninsula of Jutland. The Baltic is a mediterranean sea, which, with its three gulfs of Rigo, of Finland, and of Bothnia, affords the advantage of navigation to the inhabitants of Denmark, Germany, Prussia, Poland Russia, and Sweden. The principal islands in the Baltic are Zealand, Funen, Oeland, and Rugen."

"That the Baltic, in all its branches, was antiently much more extended than at present, many reasons (says Mr. Kirwan) induce us to believe; but principally the state in which we at present find the imm[illegible]se plains of Southern Russia, from Petersburg to Pultowa. These plains, for some h[illegible]dred miles to the south of Petersburgh, are still a morass, and farther southward they [illegible]e covered with sand, pebbles, and petrified shells. This water is not, indeed salt; bu[illegible] [illegible]either was the Baltic so originally, and is but slightly so at present, for it seems to have been formed by the confluence of the various rivers that flow into it, which at last burst a passage into the German sea; by communication with this it became salt. At present there are three passages by which they communicate, at first probably but one; to the opening of the two last, the reduction of this sea to its present limits is owing. From the Scaggerac to North Point the shore faces to-

the west; from North point to the north cape of Lapland it verges to the north-east; from the north cape to the entrance of the White sea it bends towards the south-east; and finally, from the White sea to the mouth of the Rhine; there it extends in a northerly direction. To complete this general view of the boundaries of Europe, it only remains to notice Iceland and East Greenland. The former is an island in the north Atlantic, about 600 miles west of Norway; the latter consists of two islands in the Frozen ocean, about 400 miles north of Lapland."

The European Alps produce three principal chains, which run towards the equator; and some smaller ones, running towards the pole. The first southern chain is sent out through Dauphine, Vivarois, Lyonnois, Auvergne, Cevennes, and Languedoc; and, after joining the Pyrenees, enters Spain; there it divides into two or three ramifications, one of which runs through Navarre, Biscay, Arragon, Castile, Marche, and Sierra Morena, and extends into Portugal; the other, after traversing Andalusia, and the kingdom of Granada, and there forming a number of sierras, again makes its appearance beyond the straits of Gibraltar in Africa and coasts along its northern shores, under the name of mount Atlas. The second principal chain of the Alps passes out through Savoy and Piedmont; spreads its roughness over the states of Genoa and Parma, forms the belts of the Apennines, and after frequently changing its name, and dividing Italy into two parts, terminates in the kingdoms of Naples and Sicily, producing volcanoes in every part of its course. The third chain is sent off from Hungary, and scatters innumerable mountains over all Turkey in Europe, as far as the Morea and the Archipelago, at the bottom of the Mediterranean sea.

The northern branches, though smaller at first, are no less clearly defined; and some of them even extend their ramifications as far as the Frozen ocean. An Alpine branch issuing from Savoy, through the country of Gex, proceeds through Franche Compté, Suntgua, Alsace, the Palatinate, and Veterabia. Another issues from the territory of Saltzbourg, along Bohemia, enters Poland, sends off a ramification into Prussia, towards the deserts of Waldow, and, after having passed through Russia, is lost in the government of Archangel.

The course of rivers gives us the best general method for judging of the elevation of a country. Thus it appears that Savoy and Switzerland are the highest places of Europe, from whence the ground slopes in every direction. From the Alps proceed the Danube and the Rhine, whose courses mark the two great valleys into which many little streams descend. The Po also, and the Rhine come from the same head, and, with a steeper and shorter course, find their way to the sea, through valleys of less breadth and length. On the west side of the valley of the Rhine and the Rhone, the ground rises pretty fast, so that few tributary streams come into them from that side; and from this gentle elevation France slopes to the westward. If a line, nearly straight, but bending a little to the northward, be drawn from the head of Savoy and Switzerland, all the way to Solikamskoi in Siberia, it will nearly pass through the most elevated part of Europe; for in this track most of the rivers have their rise. On the left go off the various feeders of the Elbe, the Oder, the Wesel, the Niemen, the Duna, the Neva, the Dwina, the Petzora. On the right, after passing the feeders of the Danube, we see the sources of

the Sereth and Pruth, the Dneister, the Bog, the Dnieper, the Don, and the mighty Volga. The elevation, however, is extremely moderate; and it appears from the levels taken with the barometer, by the abbé Choppe d'Auteroche, that the head of the Volga is not more than 470 feet above the surface of the ocean. And we may observe here, that its mouth, where it discharges its waters into the Caspian sea, is undoubtedly lower, by many feet, than the surface of the ocean.

The condition of Europe is such as rather to promote the safety and contentment of its inhabitants, than to indulge their love of splendor, of luxury, or of ease. It is all, excepting a small part of Lapland and Muscovy, situated in the temperate zone, so that we do not feel the extreme either of cold or heat. We cannot boast of any very rich mines of gold or silver; but we possess the more useful metals, iron, copper, and lead. We do not abound in precious stones, but our quarries afford materials for the architect and the statuary. Sugar and spices are not among our natural productions, but we have an abundance of corn, pulse, and fruits.

With respect to animals, the comparison is in our favour. The want of the elephant, the camel, and the dromedary, is supplied by the horse, the ass, and the mule: our cattle are in general superior to those of warmer climates, and in our woods is no animal so formidable as the lion or tyger. Our birds are deficient in the brilliancy of their plumage, but excel in the melody of their song. In none of the countries of Europe are serpents sufficiently numerous to be truly terrible. The various malignity that has been ascribed to European serpents of old is now utterly unknown; there are not above three or four kinds that are dangerous, and their poison operates in all the same manner. The drowsy death, the starting of the blood from every pore, the insatiable and burning thirst, the melting down of the solid mass of the whole form into one heap of putrefaction, said to be occasioned by the bites of the African serpents, are horrors with which we are entirely unacquainted. It is not, however, in animals or vegetables that the superiority of Europe chiefly consists;

Man is the noblest growth our realms supply,
And souls are ripen'd by this northern sky.

The Europeans surpass both in arts and sciences, especially in those called the liberal; in trade, navigation, and in military and civil affairs; being, it is said, at the same time more prudent, more valiant, more generous, more polite, and more sociable than they; and though we are divided into various sects, yet, as Christians, we have infinitely the advantage over the rest of mankind. There are but few places in Europe where they sell each other for slaves: and none where robbery is a profession, as it is in Asia and Africa.

Though Europe is now the most civilized quarter of the globe, its most antient inhabitants were certainly the rudest barbarians. Some of them, it is related, lived indifferently on every fruit, herb, or root, that came in their way, and either lay in the open fields, or, at best, sheltered themselves in dens, caves, and hollow trees; their countries, in the mean time, remaining uncultivated deserts. The first improvement they made in

their way of living was the exchanging of their old food for the more wholesome acorns, building huts for themselves to sleep in, and covering their bodies with the skins of beasts. This reformation in the way of life did not, it seems, work any in their morals. They, who had nothing to contend for but a hole to sleep in, began now to rob one another of those slender acquisitions. This, in process of time, put them under a necessity of joining themselves into companies, under some heads, that they might either more successfully plunder their neighbours, or preserve more securely the property they had already obtained.

Such is the account which the historians of Greece have thought proper to deliver down to us, respecting the most early possessors of their country: it must be admitted that such a description is very suitable to the views of poets and philosophers, and therefore they may both of them have contributed to darken the scène; but we have not sufficient reason to deny that it is founded on fact.

The inhabitants of the rest of Europe, though not equally barbarous, do not appear to have been far advanced in refinement. They consisted of many independent tribes, between some of whom there was a considerable affinity of language, and between all of them a striking coincidence of manners. War and hunting they esteemed the most pleasant and honourable exercises; while the cultivation of the earth in their countries were submitted to with extreme reluctance, as employments unworthy of their martial spirit. Their towns were only a few miserable huts, built near each other, in the deepest recesses of the forest. Their religion was as savage as their lives; their gods were departed heroes, who were supposed to be more highly honoured by human sacrifices than by any other oblation. Barbarous as we must acknowledge the state of Europe at this time to have been, it was not destitute of circumstances favourable to the cultivation of the mind. As our ancestors delighted in war, they must necessarily have paid some attention to the fabrication of weapons, and to every thing which gave them an advantage in attacking or resisting an enemy. The reciting the achievements of their fathers and their chiefs was the most agreeable employment of their leisure. Hence arose the order of bards, at once the poets and historians of the north. Their priests claim a superiority in wisdom as well as in sanctity, and would therefore be induced to increase their natural and moral information, or, at least, not lose that portion which they might have already learned. How long these causes continued to operate, unassisted by an intercourse with foreign nations, we are unable to decide. We know, however, that at a very remote period, the Phœnicians had extended their navigation to Greece, Sicily, and Spain, to the isles of Scilly, and to the southern coast of Britain, and planted colonies in some of those countries, and had communicated to all of them something of their manners. It is also to be remarked, that, about 16 centuries before the Christian era, several Egyptian families passed over Greece, where they erected cities, founded states, and civilized great numbers of the original inhabitants. The gods, mysteries, and oracles of Egypt were now introduced into Europe; and all the eloquence of the orator and the enthusiasm of the poet employed to gain converts to eastern polytheism. During the period which began with Orpheus, and ended with Homer and Hesiod, the influence of learning was extended over Greece, Thrace, and many parts of

Italy, and in painting, sculpture, music, poetry, oratory, moral philosophy, medicine, astronomy, and so much of geography as is necessary for the description of countries were studied with some degree of diligence and success. From the death of Homer to the commencement of the Peloponnesian war there was an interval of about 400 years. In the beginning of this period, barbarism is supposed to have increased; but toward the latter part of it there flourished a number of eminent men, whose names have survived the lapse of two thousand years, and still continue to be mentioned with veneration. Such were the three great legislators, Lycurgus, Numa, and Solon; Thales and Pythagoras, founders of the two schools from which all the other sects of antient philosophers were derived; Alceus, the father of Lyric poetry; Æsop the fabulist, and Abaris the Hyperborean sage, inferior to none of the former for abilities or for virtues. In the mean time, the Greeks evinced the superiority of European above Asiatic discipline, by the total defeat of two vast Persian armies; and the Romans, in Italy, laid the foundation of an empire, which was one day to give laws to the world.

That which is denominated the Grecian age, or the first golden age of learning, extends from the commencement of the Peloponnesian war to the death of Alexander the Great, was crouded with great political events, and productive of an extraordinary number of illustrious characters. Europe may be considered as at that time divided into five unequal parts, belonging to the Greeks, the Romans, the Carthaginians, the Gauls, and the other barbarians. That high and enterprising spirit which animated the Grecians to oppose the great king of Persia, now urged them to civil commotion, and at length compelled them to submit to slavery. A zeal for liberty was what they all pretended; but on every occasion it appeared that this love of liberty was a desire of dominion. No state in Greece could bear to see another equal to itself; hence their perpetual contests for pre-eminence, which could not but weaken the whole body, and render them an easy prey to an ambitious and politic prince, who was capable of taking advantage of these divisions. In 404 before Christ the Athenian power was broken, by the taking of their city by the Spartans. In 370 that of the Spartans received a severe check from the Thebans, at the battle of Leuctra; and eight years after was still farther reduced, by the battle of Montinea. Epaminondas, the great enemy of the Spartans, was indeed killed; but this only proved a more speedy means of subjugating all the states to a foreign, and, at that time, despicable power. The Macedonians, a barbarous nation, lying to the north of Greece, were, two years after the death of Epaminondas, reduced to the lowest ebb by the Illyrians, another nation of barbarians in the neighbourhood. The king of Macedon being killed in an engagement, Philip, his brother, departed from Thebes, where he had studied the art of war under Epaminondas, in order to take possession of his kingdom. Being a man of great prudence and policy, he quickly settled his own affairs, vanquished the Illyrians, and, being no stranger to the weakened state of Greece, began almost immediately to meditate the conquest of it. The particulars of this enterprise shall be hereafter related; here it is sufficient to observe, that, by first attacking those whom he was sure to overcome, by corrupting those whom he thought it dangerous to attack, by sometimes pretending to assist one state, and some-

times another, and by imposing upon them all, as it best served his turn, he at last put it out of their power to make any resistance, at least such as could keep him from gaining his end. In 338 before Christ he procured himself to be elected general of the council of the Grecian states, under pretence of settling some troubles at that time in Greece; but having once obtained liberty to enter that country with an army, he quickly convinced the states that they must all submit to his will. He was opposed by the Athenians and Thebans, but the intestine wars of Greece had cut off all her great men, and no general was now to be found capable of opposing his armies with success. The king of Macedon, being now master of Greece, projected the conquest of Asia, but while he was preparing to enter on his great design he was assassinated. His son Alexander was possessed of every quality necessary for the execution of so great a plan; and his impetuosity of temper made him execute it with astonishing rapidity. Having conquered Persia, and led his army to the banks of the Indus, he returned to Babylon, and abandoning himself to continual intoxication, died of a fever, 323 years before the Christian era. In the mean time various branches of literature were advanced to a degree of perfection, which has not yet been excelled. The illustrious historians, Herodotus, Thucydides, and Xenophon; the philosophers, Socrates, Plato, and Aristotle; the orators Demosthenes, Æschines, Lysias, and Isocrates; the poets, Pindar, Æschylus, Euripides, Sophocles, Aristophanes, Menander, Anacreon, and Theocritus; the statuaries, Lysippus, Apellus, Phidias Praxiteles; and, lastly, the celebrated painter Apelles, and many others of inferior eminence were among the ornaments of this calamitous age.

While the Grecian empire thus suddenly sprung up, the Romans were establishing their empire on the most solid foundations; being originally little better than a parcel of lawless banditti, they were despised and hated by the neighbouring states. This soon produced wars, in which, at first from accidental circumstances, and afterwards from their superior valour and conduct, the Romans proved almost constantly victorious. The jealousies which prevailed among the Italian states, and their ignorance of their true interest, prevented them from combining against that aspiring nation, and crushing it in its infancy, which they might easily have done: while, in the mean time, the Romans, being kept in a state of continual warfare, became at last such expert soldiers, that no other state on earth could resist them. During the time of their kings, they made a very considerable figure among the Italian nations, but after their expulsion, and the commencement of the republic, their conquests became much more rapid and extensive. In 501 before Christ they subdued the Sabines; eight years after the Latins; and in 399, the city of Veia, the strongest in Italy, excepting Rome itself, was taken, after a siege of ten years. But, in the midst of their successes, a sudden irruption of the Gauls had almost put an end to their power and nation at once. The city was burnt to the ground, in 385 before Christ, and the capitol on the point of being surprised, when the Gauls, who were climbing up the walls in the night, were accidentally discovered and repulsed. In a short time Rome was rebuilt, with much greater splendour than before; but now a general revolt and combination of the nations, formerly subdued, took place. The Romans, however, still got the better of their enemies: but

even at the time of the celebrated Cornelius's death, which happened much about 352 before Christ, their territories scarce extended six or seven leagues from the capital. The republic from the beginning was agitated by those which at last proved its ruin. The people had been divided by Romulus into two classes, namely, patricians and plebeians, answering to our nobility and commonalty. Between these two bodies were perpetual jealousies and contentions, which retarded the progress of the Roman conquests, and revived the hopes of the nations they had conquered. The tribunes of the people were perpetually opposing the consuls and military tribunes. The senate had often recourse to a dictator, endowed with absolute power; and the tried valour and experience of the Roman troops made them victorious: but the return of domestic seditions gave the subjugated nations an opportunity of shaking off the Roman yoke. Thus had the Romans continued, for near 400 years, running the same round of wars with the same enemies, and reaping very little advantage from their conquests, till at last matters were compounded, by choosing one of the consuls from among the plebeians; and from this time chiefly we may date the prosperity of Rome; so that, by the time Alexander the Great died, they were held in considerable estimation among foreign nations. The Carthaginians, an African state, of Phœnician origin, had, by this time, obtained great commercial importance; they had reckoned among their European dominions Sardinia and part of Sicily. Whether they had at this time any settlements in Spain is not known; it is, however, certain that they traded to that country for the sake of the silver, in which it was very rich. The Gauls possessed Britain, the Netherlands, France, Spain, and the north of Italy; while all the country east of the Rhine, except that of the Greeks, remained in possession of the other barbarians.

The complexion of the age which succeeded the death of Alexander did, in several instances, materially differ from the preceding; it was not equally fertile of great men, but more abundantly productive of events which concerned the general state of Europe. Alexander, as already observed, had not distinctly named a successor; but he had left behind him a victorious, and, we may say, an invincible army, commanded by most expert officers, all of them ambitious of supreme authority. It is not to be supposed that peace could be long preserved in such a situation. For a number of years, indeed, nothing was to be seen or heard of but the most horrid slaughters and wickedness of every kind, until at last the mother, wives, children, brothers, and sisters of Alexander were cut off, not one of the family of that great conqueror being left alive. When matters were a little settled, four new empires, each of them of no small extent, arose out of the empire of Alexander. Cassander, the son of Antipater, had Macedonia and all Greece; Antigonus, Asia Minor; Seleucus had Babylon and the eastern provinces; and Ptolemy, Egypt and the western ones. The succeeding kings of Macedon, though they did not preserve the same authority over the Grecian states that Alexander, Antipater, and Cassander had done, yet effectually prevented them from those outrages upon one another, for which they had formerly been so remarkable. Indeed it is somewhat difficult to determine whether their condition was better or worse than before they were conquered by Philip; since, though they were now prevented from destroying one another, they were most grievously oppressed by the Macedonian tyrants.

While the eastern parts of the world were thus deluged with blood, and the successors of Alexander were pulling to pieces the empire which he had established, the Romans and Carthaginians proceeded in their attempts to enslave the nations of the west. The Romans were engaged in war, conquered one city and state after another, till, about the year 252 before Christ, they had made themselves masters of almost the whole of Italy. During all this time they had met only with a single check in their conquest, and that was the invasion of Pyrrhus, king of Epirus. That ambitious and fickle prince had projected the conquest of Italy, which he fancied would be an easy matter. Accordingly, in 271 before Christ, he entered that country, and maintained a war with the Romans for six years; till at last being utterly defeated by Curius Dentatus, he was obliged to return. The Romans had no sooner made themselves masters of Italy, than they wanted only a pretence to carry their arms out of it; and this pretence was soon found out. Being invited into Sicily, to assist the Momertines against Hiero, king of Syracuse, and the Carthaginians, they immediately commenced a war with the latter, which continued with the utmost fury for 23 years. The war ended greatly to the disadvantage of the Carthaginians, chiefly owing to the bad conduct of their generals; none of whom, Hamilcar Barcas alone excepted, seem to have been possessed of any degree of military skill; and the state had suffered too many misfortunes before he entered upon the command for him or any other to retrieve it at that time. The consequence of this war was the entire loss of Sicily to the Carthaginians; and soon after the Romans seized on the island of Sardinia, Hamilcar, perceiving that there was now no alternative, but that, in a short time, either Carthage must conquer Rome, or Rome would conquer Carthage, bethought himself of a method by which his country might become equal to that haughty republic. This was by reducing all Spain, in which the Carthaginians had already considerable possessions, and from the mines of which they drew great advantages. He had, therefore, no sooner finished the war with the mercenaries, which succeeded that with the Romans, than he set about the conquest of Spain. This, however, he did not live to accomplish, though he made great progress in it. His son Asdrubal continued the war with success; till, at last, the Romans, jealous of his progress, persuaded him to enter into a treaty with them, by which he engaged himself to make the river Iberus the boundary of his conquests. This treaty, probably, was never ratified by the senate of Carthage; nor, though it had, would it have been regarded by Hannibal, who succeeded Asdrubal in the command, and had sworn perpetual enmity to the Romans.

The transactions of the second Punic war are, perhaps, the most remarkable which the history of the world can afford. Certain it is, that nothing can shew more clearly the slight foundations upon which the greatest empires are built. We now see the Romans, the nation most remarkable for their military skill in the whole world, and who, for more than 500 years, had been almost constantly victorious, unable to resist the efforts of one single man. At the same time we see this man, though evidently the first general in the world, lost, solely for the want of a slight support.

In former times the republic of Carthage supplied her generals in Sicily with hundreds of thousands, though their enterprises were almost constantly unsuccessful; but now

Hannibal, the conqueror of Italy, was obliged to abandon his design, merely for want of 20 or 30,000 men. That degeneracy and infatuation which never fails to overwhelm a falling nation, or rather, which is the cause of its fall, had now infected the counsels of Carthage, and the supplies were denied. Neither was Carthage the only infatuated nation at this time. Hannibal, whose prudence never forsook him, either in prosperity or adversity, in the height of his good fortune had concluded an alliance with Philip, king of Macedon. Had that prince sent an army to the assistance of the Carthaginians in Italy, immediately after the battle of Cannæ, there can be no doubt but the Romans would have been forced to accept of that peace which they so haughtily refused; and indeed this offer of peace, in the midst of so much success, is an instance of moderation, which, perhaps, does more honour to the Carthaginian general, than all the military exploits he performed. Philip, however, could not be roused from his indolence, nor see that his own ruin was connected with that of Carthage. The Romans had now made themselves masters of Sicily; after which they recalled Marcellus, with his victorious army, to be employed against Hannibal; and the consequence at last was, that the Carthaginian armies, unsupported in Italy, could not conquer it, but were recalled into Africa, which the Romans had invaded. The southern nations seem to have been as blind to their own interest as the northern ones. They ought to have seen that it was necessary for them to preserve Carthage from being destroyed; but, instead of this, Masinissa, king of Numidia, allied with the Romans, and, by this means, Hannibal was overcome at the battle of Zama, which finished the second Punic war, in 188 before Christ.

The states of Greece, weary of the tyranny of the Macedonians, entered into a resolution of recovering their liberties. For this purpose was formed the Achæon league; but, as they could not agree among themselves, they at last came to the imprudent determination of calling in the Romans, to defend them against Philip, king of Macedon. This produced a war, in which the Romans were victorious. The Macedonians, however, were still formidable; and as the intention of the Romans to enslave the whole world could no longer be doubted, Perseus, the successor of Philip, renewed the war: through his own cowardice he lost a decisive engagement, and with it his kingdom, which submitted to the Romans in 167 before Christ.

However zealous the Romans might profess to be in the service of the Greeks, they did not protect them any longer than served their own purposes, but, in the year 147 before Christ, put an end to their liberties, by the final destruction of Corinth.

There now remained no people in Europe to resist the Roman arms, except the Gauls, the Germans, and some Spanish nations; nor was the resistance they were capable of making, such as could be any effectual bar to the Roman ambition. The Spaniards had indeed been subdued by Scipio Africanus, in the time of the second Punic war, but in 155 before Christ they revolted, and under the conduct of one Viriathus, formerly a robber, held out for a long time against all the armies the Romans could send into Spain. Him the consul caused to be murdered, about 138 before Christ, because he found it impossible to reduce him by force. The city Numantia defied the whole Roman power for six years longer, till at last, by dint of treachery, numbers, and perseverance, it was

taken; but the inhabitants, reduced to extremity by famine, set fire to their houses, and perished in the flames, or killed one another, so that not one remained to grace the triumph of the conqueror: and this, for the present, quieted the rest of the Spaniards.

In 122 before Christ, the Balearic islands, now called Majorca, Minorca, and Ivica, were subdued, and the inhabitants exterminated; and soon after several of the nations beyond the Alps were obliged to submit. The Gauls, however, were still at liberty, and the Spanish nations bore the Roman yoke with great impatience. The Gauls infested the territories of the republic by their frequent incursions, which were sometimes very terrible; and though several attempts had been made to subdue them, they always proved insufficient, till the time of Julius Cæsar. By him they were totally reduced, from the river Rhine to the Pyrenean mountains, and many of their nations almost exterminated. He carried his arms also into Germany and the southern parts of Britain; but in neither of these parts did he make any permanent conquests. While the Romans thus employed all means to reduce the world to their obedience, they were making one another feel the same miseries at home, which they inflicted upon other nations abroad. The first civil dissensions took their rise soon after the siege of Numantia in Spain. Tiberius Sempronius Gracchus undertook the cause of the plebeians against the patricians, by whom the former were greatly oppressed. He began with reviving an old law, which enacted that no Roman citizen should possess more than 500 acres of land. The overplus he designed to distribute among those who had no lands, and to reimburse the rich out of the public treasury. This law met with great opposition and many tumults; and at last occasioned the death of Gracchus, and the persecution of his friends, several hundreds of whom were put to cruel deaths, without any form of law. The disturbance did not cease with the death of Gracchus; new contests ensued on account of the Sempronian law, and the giving to the Italian allies the privilege of Roman citizens. This last not only produced great commotions in the city, but occasioned a general revolt of the states of Italy against the republic of Rome. This rebellion was not quelled without the utmost difficulty; and in the mean time the city was deluged with blood by the contending factions of Sylla and Marius, the former of whom sided with the patricians, and the latter with the plebeians. These disturbances ended in the perpetual dictatorship of Sylla, about 80 before Christ.

From this time we may date the loss of the Roman liberty; for though Sylla resigned his dictatorship two years after, the succeeding contests between Cæsar and Pompey proved equally fatal to the republic. These contests were decided by the battle of Pharsalia, by which Cæsar became, in effect, master of the empire, in 43 before Christ. Being then become sole master of the Roman empire, and having all the power of it at his command, he projected the greatest schemes; tending, according to some, not less to the happiness than to the glory of his country; when he was assassinated in the senate-house, in the 58th year of his age, and 39 before Christ. The design of Brutus and Cassius, who assassinated Cæsar, was to have established the antient republican government of Rome, but their efforts were unsuccessful, and ended in their own destruction, and that of a great number of their followers, at the battle of Philippi.

The defeat of the republicans was followed by numberless disturbances, murders, and proscriptions, till, at last, Octavius, having cut off all who had the courage to oppose him, and finally got the better of his rivals at the battle of Actium, put an end to the republic, in 27 before Christ.

The destruction of the Roman commonwealth proved advantageous to the few nations in the world who still retained their liberty. That outrageous desire of conquest which had so long marked the Roman character, now, in a great measure, ceased, because there was now another way of satisfying the desire of ambitious men, namely, by courting the favour of the emperor. After the final reduction of the Spaniards therefore, and the conquests of the country of Mœsia, Pannonia, and some others adjacent to the Roman territories, and which, in a manner, seemed naturally to belong to them, the empire enjoyed for some time a profound peace.

The reduction of Britain by Claudius and Agricola, and of the Dacians by Trajan, were the principal conquests, after this event, achieved by the Romans in Europe.

A little after the conclusion of the second Punic war, literature began to be cultivated at Rome. A succession of writers made their appearance, not indeed distinguished for the elegance of their language, but inferior to few in the vigour of their genius. These were succeeded by Catullus, Lucretius, Terence, Virgil, Horace, Tibullus, Propertius, Ovid, Phædrus, Cæsar, Cicero, Livy, Sallust, Varro, and Vitruvius. These all flourished before the death of Augustus, and gave lustre to what is, from him, denominated the Augustan age. After this literature began to decline, yet in the interval between Augustus and Trajan we meet with several illustrious names, such as Lucan, Seneca, Tacitus, Suetonius, and the two Plinies. Such as flourished either in Greece or Rome during the existence of the Roman empire, are called the antients, and by this name distinguished, as having written since the revival of literature.

" From whatever cause it happens, (says Dr. Blair) so it is, that among some of the antient writers we must look for the highest models in most of the kinds of elegant composition. For accurate thinking, and enlarged ideas in several parts of philosophy, to the moderns we ought chiefly to have recourse. Of correct and finished writing in some works of taste, they may afford useful patterns; but for all that belongs to original genius, to spirited, masterly, and high execution, our best and most happy ideas, are, generally speaking, drawn from the antients. In epic poetry, for instance, Homer and Virgil, to this day, stand not within many degrees of any rivals. Orators, such as Cicero and Demosthenes, we have none. In history, notwithstanding some defects in the antient historical plans it may be safely asserted, that we have no such historical narrations, so elegant, so picturesque, so animated, and interesting as that of Herodotus, Thucydides, Xenophon, Livy, Tacitus, and Sallust. Although the conduct of the drama may be admitted to have received some improvements, yet for poetry and sentiment we have nothing to equal Sophocles and Euripides; nor any dialogue in comedy that comes up to the correct, graceful, and elegant simplicity of Terence. We have no such love elegies as those of Tibullus; no such pastorals as some of Theocritus's; and for lyric poetry, Horace stands quite unrivalled. The name of Horace cannot be mentioned without a particular encomium. That " Curiosa Felicitas," which Petronius has re-

marked in his expression; the sweetness, elegance, and spirit of many of his odes, the thorough knowledge of the world, the excellent sentiments, and natural easy manner which distinguishes his satires and epistles, all contribute to render him one of those very few authors whom one never tires of reading; and from whom alone, were every other monument destroyed, we should be led to form a very high idea of the taste and genius of the Augustan age."

"Let us guard, however, against a blind and implicit veneration for the antients in every thing. Whatever superiority the antients may have had in points of genius, yet in all arts, where the natural progress of knowledge has had room to produce any considerable effects, the moderns cannot but have some advantage."

"The world may, in certain respects, be considered as a person, who must needs gain somewhat by advancing in years. Its improvements have not, I confess, been always in proportion to the centuries that have passed over it; for, during the course of some ages, it has sunk as into a total lethargy. Yet, when roused from that lethargy, it has generally been able to avail itself, more or less, of former discoveries. At intervals there arose some happy genius, who could both improve on what had gone before, and invent something new. With the advantage of a proper stock of materials, an inferior genius can make greater progress than a much superior one to whom these materials are wanting."

"Hence, in natural philosophy, astronomy, chemistry, and other sciences that depend on an extensive knowledge, and observation of facts, modern philosophers have an unquestionable superiority over the antient. I am inclined also to think, that in matters of pure reasoning, there is more precision among the moderns than in some instances there was among the antients; owing, perhaps to a more extensive literary intercourse, which has improved and sharpened the faculties of men. In some studies too, that relate to taste and fine writing, the progress of society must, in equity, be admitted to have given us some advantages. For instance, in history there is certainly more political knowledge in several European nations at present than there was in antient Greece and Rome. We are better acquainted with the nature of government, because we have seen it under a greater variety of forms and revolutions. The world is more laid open than it was in former times; commerce is greatly enlarged; more countries are civilized; posts are every where established; intercourse is become more easy; and the knowledge of facts, by consequence, more attainable. All these are great advantages to historians; of which, in some measure, as I shall afterwards shew, they have availed themselves. In the more complex kinds of poetry, likewise, we may have gained somewhat, perhaps, in point of regularity and accuracy. In dramatic performances, having the advantage of the antient models, we may be allowed to have made some improvements, in the variety of characters, the conduct of the plot, attentions to probability, and to decorum."

"These seem to me the chief points of superiority we can plead above the antients; neither do they extend so far as might be imagined at first view. For if the strength of genius be on one side, it will go far, in works of taste at least, to counterbalance all the artificial improvements which can be made by greater knowledge and correctness. To

return to our comparison of the age of the world with that of a man, it may be said, not altogether without reason, that if the advancing age of the world bring along with it more science and more refinement, they belong, however, to its earlier periods, more vigour, more fire, more enthusiasm of genius. This appears, indeed, to form the characteristical difference between the antient poets, orators and historians, compared with the modern. Among the antients we find higher conceptions, greater simplicity, more original fancy. Among the moderns, sometimes more art and correctness, but feebler exertions of genius. But though this be in general a mark of distinction between the antients and moderns, yet, like all general observations, it must be understood with some exceptions; for, in point of poetical fire and original genius, Milton and Shakspeare are inferior to no poets in any age."

Not content with possessing the advantages of civilization themselves, the Romans endeavoured to communicate them to every nation they conquered. They transferred to Spain, Gaul, Germany, Pannonia, and Britain, their laws, manners, arts, sciences, language, and literature. Some have thought these a sufficent compensation for the loss of liberty and independence; but a diligent attention to facts will incline us to a very different decision.

The degrading influence of Roman dominion, more than any other circumstance, hastened the dissolution of the empire; for although the conquered nations were by that means more easily kept in subjection, they became unable to resist a foreign enemy, and might be considered as decayed members of the body politic, which increased its size without increasing its strength. An appearance of prosperity, indeed, succeeded the havoc of war; the ruined cities were rebuilt, and new ones founded; population flourished; civilization advanced; the arts were cultivated; but the martial and independent spirit of the people of the northern provinces was so totally extinct in a few centuries, that, instead of preferring death to slavery, like so many of their illustrious ancestors, they patiently submitted to any contribution which a rapacious governor was pleased to levy. They became incapable of thinking or acting for themselves, and consequently unable to resist the most desultory inroads of a troop of undisciplined barbarians.

A total relaxation of manners had ensued on the pillage of Greece, the conquest of Asia, and the rise of the imperial power. The people were disarmed by the jealousy of despotism, and corrupted by the example of an abandoned court. Effeminacy, debauchery, profligacy, and every atrocious vice was common upon the throne. A new source of ruin speedily disclosed itself. Some disputed successions having made the army sensible that the sovereignty was in their hands, they thenceforth sold it to the highest bidder. Sporting with the lives of their princes, as formerly with the laws of the republic, they created emperors only to extort money from them, and afterwards massacred them, in order to extort like sums from their successors. Emperors were opposed to emperors, and armies disputed the pretensions of armies. With obedience discipline was lost. Wise princes endeavoured, but in vain, to restore it; their zeal to maintain the antient military regulations only exposed them to the fury of the soldiery; the very name of discipline was a signal for revolt.

The armies of Rome did not now consist of free men, who had voluntarily chosen a military life, or who, in obedience to the laws, served for a term of years, but of merecenaries collected from the provinces, or of barbarians bribed into the service, as more able to undergo the fatigues of war. Her soldiers were no longer citizens armed in defence of their country, they were its oppressors; they were licensed robbers, insatiable of plunder. In order to prevent the continual treasons of the soldiery, but especially the Pretorian band, the emperors associated with themselves, in the supreme power, their sons, their brothers, or such persons as they could trust; and every emperor elected a Cæsar, or successor. They likewise sub-divided, and consequently diminished, the power of the Pretorian prefects, who were the grand viziers of their time, appointing four instead of two. By these means the imperial seat was rendered more secure; the emperors were permitted to die in their beds; manners were softened, and less blood was shed by ferocity; but the state was wasted by an enormous expence, and a new species of oppression took place, no less disgraceful to humanity than the former massacres. The tyranny was transferred from the soldiery to the prince; the cause and the mode was changed, but the effect was the same. Shut up within the walls of a palace, surrounded by flatterers and women, and sunk in the softness of Eastern luxury, those masters of the empire governed in secret by the dark and subtle artificers of despotism. Iniquitous judgments, under the form of justice, seemed only to set death at a distance, in order to make life more miserable, and existence more precarious. Nothing was said, all was insinuated: every man of prime reputation was accused; and the warrior and the politician daily saw themselves at the mercy of sycophants, who had neither ability to serve the state themselves, nor generosity to suffer others to serve it with honour.

The removal of the imperial court to Constantinople, to say nothing of the subsequent division of the empire into eastern and western, was a new blow to the grandeur of Rome, and likewise to its security; for the veteran legions, that guarded the banks of the Danube and the Rhine, were also removed to the east, in order to guard another frontier; and Italy robbed of its wealth and inhabitants, sunk into a state of the most annihilating langour. Changed into a garden by an Asiatic pomp, and crowded with villas, now deserted by their voluptuous owners, this once fertile country was unable to maintain itself; and when the crops of Sicily and Africa failed, the people breathed nothing but sedition. These discontents, occasioned by the removal of the imperial court, were heightened by those of religion. Christianity had long been making progress in the empire, it now ascended the throne of the Cæsars. As the Christians had formerly been persecuted, they, in their turn, became persecutors. The gods of Rome were publicly insulted, their statues were broken, their votaries were harrassed. Penal statutes were enacted against the antient worship; the punishment of death was denounced against the sacrifices formerly ordained by law; the altar of victory was overturned, the cross was exalted in its stead, and displayed in place of that triumphant eagle, under which the world had been conquered. The most dreadful hates and animosities arose. The pagans accused the Christians of all their misfortunes; they rejoiced in the midst of the greatest calamities, as if the gods had been come in person to take vengeance

on the destroyers of their altars; while the Christians affirmed, that the remains of paganism alone had drawn down the wrath of Omnipotence. Both parties were more occupied about their religious disputes than the common safety; and, to complete the miseries of this unhappy people, the Christians became divided among themselves. New sects sprung up; new disputes took place; new jealousies and antipathies raged, and the same punishments were denounced against heretics and pagans. An universal bigotry debased the minds of men. In a grand assembly of the provinces, it was proposed, that, as there are three persons in the Trinity, they ought to have three emperors. Sieges were raised, and cities lost, for the sake of a bit of rotten wood, or withered bone, which was supposed to have belonged to some saint or martyr. The effeminacy of the age mingled itself with this infatuation; and generals, more weak than humane, sat down to mourn the calamities of war, when they should intrepidly have led on their troops to battle.

" The character of the people with whom the Romans had to contend, was, in all respects the reverse of their own. Those northern adventurers, or barbarians, as they were called, breathed nothing but war. Their martial spirit was yet in its vigour; they sought a milder climate, and lands more fertile than their forests and mountains; the sword was their right; and they exercised it without remorse, as the right of nature. Barbarous they surely were, but they were superior to the people they invaded in virtue as well as in valour. Simple and severe in their manners, they were unacquainted with the name of luxury; any thing was sufficient for their extreme frugality. Hardened by exercise and toil, their bodies seemed inaccessible to disease or pain: war was their element; they sported with danger, and met death with expressions of joy. Though free and independent, they were firmly attached to their leaders, because they followed them from choice, not from constraint, the most gallant being always dignified with the command. Nor were these their only virtues. They were remarkable for their regard to the sanctity of the marriage bed; their generous hospitality, their detestation of treachery and falsehood. They possessed many maxims of civil wisdom, and wanted only the culture of reason to conduct them to the true principles of social life. What could the divided, effeminate, and now dastardly, Romans oppose to such a people? Nothing but fear and folly; or, what was still more ignominious, treachery. Soon convinced that the combat was unequal, they attempted to appease their invaders by money; but that peace could not be of long continuance which put those who sold it in a better condition to sell another. Force is seldom just. These voluntary contributions were changed into a tribute, which was demanded as a right; and war was denounced when it was refused, or fell short of the customary sum. Tributes were multiplied upon tributes, till the empire was drained of its treasure. Another expedient was then fallen upon: large bodies of the barbarians were taken into pay, and opposed to other barbarians. This mode of defence, so contrary to the practice of the first Romans, answered for the moment, but terminated in ruin: those auxiliaries proved the most dangerous enemies to the empire. Already acquainted with the Roman luxuries, the Roman wealth, and the Roman weakness, they turned their arms against their masters, inviting their countrymen to come and share with them in the spoils of a people unworthy of so many

accommodations. They were likewise become acquainted with what little military skill yet remained among the Romans; and that, superadded to their natural intrepidity, made them perfectly irresistible. A third expedient, yet more unworthy of the Roman name, was had recourse to; assassination was employed by the emperors against those princes or leaders whose arms they feared; it was even concealed beneath the mask of friendship, and perpetrated under the roof of hospitality, in the convivial hour, and at the festive board. This diabolical practice, the want of faith, and other unmanly vices of the Romans, not only account for the total subversion of their empire, but also for many of the cruelties of the conquerors. Inflamed with the passion of revenge, no less than the thirst of conquest or the lust of plunder, the inflexible and high spirited, though naturally generous barbarians were equally deaf to the offers of treaty, and the voice of supplication. Wherever they marched, their route was marked with blood. The most fertile and populous provinces were converted into deserts. Italy and Rome itself were often pillaged. New invaders, from regions more remote and barbarous, drove out or exterminated the former settlers: and Europe was successively laid waste; till the north, by pouring forth its myriads, was drained of people, and the sword of slaughter tired of destroying".

" In less than a hundred years after the first northern invasion, scarce any remains of the laws, manners, arts, or literature of the Romans were left in our quarter of the globe. By the beginning of the sixth century, the Visigoths had possessed themselves of Spain; the Franks of Gaul; the Saxons of the Roman provinces in South Britain; the Huns of Pannonia; the Ostrogoths of Italy, and the adjacent provinces. New governments, laws, languages; new manners, customs, dresses; new names of men and of countries every where prevailed. A total change took place in the state of Europe. How far this change ought to be lamented is not now a matter of much dispute. The human species was reduced to such a degree of debasement by the pressure of Roman despotism, that we can hardly be sorry at any means, however violent, which removed or lightened the load. But we cannot help lamenting, at the same time, that this revolution was the work of nations so little enlightened by science or polished by civilization; for the Roman laws, though somewhat corrupted, were yet in general the best that human wisdom had framed; and the Roman arts and literature, though much declined, were still superior to any thing found among rude nations, or which those who spurned them produced for many ages. The contempt of the barbarians for the Roman improvements is not wholly, however, to be ascribed to their ignorance, nor the suddenness of the revolution to their desolating fury; the manners of the conquered must come in for a share. Had the Romans not been in the lowest state of national degeneracy, they might surely have civilized their conquerors; had they retained any of the virtues of men among them, they might have continued under the government of their own laws."

" Many of the northern leaders were endowed with great abilities, and several of them were acquainted both with the policy and literature of the Romans: but they were justly afraid of the contagious influence of Roman example, and therefore avoided every thing allied to that name, whether hurtful or otherwise. They erected a cottage in the

neighbourhood of a palace, breaking down the stately building, and burying in its ruins the finest works of human ingenuity; they ate out of vessels of wood, and made the vanquished be served in vessels of silver; they hunted the boar on the voluptuous parterre; the trimgard on an expensive pleasure-ground, where effeminacy was wont to saunter, or indolence to loll; and they pastured their herds where they might have raised a luxuriant harvest. They prohibited their children the knowledge of literature, and of all the elegant arts; because they concluded, from the dastardliness of the Romans, that learning tends to enervate the mind, and that he who has trembled under the rod of a pedagogue will never dare to meet a sword with an undaunted eye. Upon the same principles they rejected the Roman jurisprudence; it reserved nothing to the vengeance of man: they, therefore, not unphilosophically, thought it must rob him of his active powers. Nor could they conceive how the person injured could rest satisfied, but by pouring out his fury upon the author of the injustice. Hence all those judicial combats, and private wars, which, for many ages, desolated Europe."

This representation of the northern barbarians is given by one well read in European history, but appears to exhibit them in too favourable colours; it is therefore, just to present the reader with another portrait, which is also drawn by the hand of a master, and brings the enormities they perpetrated more fully into view.

"The devastations committed by these barbarians, when they made their incursions, are incredible, and the relation shocking to human nature. Some authors seem much inclined to favour them, and even insinuate that barbarity and ignorant ferocity were their greatest, if not their only faults; but from their history it plainly appears, that not only barbarity and the most shocking cruelty, but the highest degrees of avarice, perfidy, and disregard of the most solemn promises, were to be numbered among their vices. It was ever a sufficient reason for them to make an attack, that they thought their enemies could not resist them. Their only reason for making a peace, or for keeping it, was because their enemies were too strong: and their only reason for committing the most horrid massacres, rapes, and all manner of crimes, was because they had gained a victory. The Romans, degenerate as they were, are yet to be esteemed much better than these savages; and therefore we find not a single province of the empire that would submit to the barbarians while the Romans were able to protect them."

"The Gauls, the Britons, the Germans, the Scandinavians, and all the nations of the north of Europe, had a certain degree of conformity in their government, manners, and opinions. The same leading character, and the same degree of conformity, was also observable among their modern descendants, who, under the names of Goths and Vandals, dismembered the Roman empire. Alike distinguished by a love of war and of liberty, by a persuasion that force only constitutes right, and that victory is an infallible proof of justice, they were equally bold in attacking their enemies, and in resisting the absolute domination of any one man. They were free, even in a state of submission. Their primitive government was a kind of military democracy, under a general or chieftain, who had commonly the title of king. Matters of little consequence were determined by the principal men, but the whole community assembled to deliberate on

national objects. The authority of their kings or generals, who owed their eminence entirely to their military talents, and held it by no other claim, was extremely limited: it consisted rather in the privilege of advising, than in the power of commanding. Every individual was at liberty to chuse whether he would engage in any warlike enterprise. They, therefore, followed the chieftain, who led them forth in quest of new settlements, from inclination, not controul; as volunteers who offered to accompany him, not as soldiers whom he could order to march. They considered their conquests as common property, in which all had a right to share, as all had contributed to acquire them; nor was any obligation whatsoever entailed on the possessors of land thus obtained. Every one was the lord of his own little territory. But after settling in the Roman provinces, where they had their acquisitions to maintain, not only against the antient inhabitants, but also against the inroads of new invaders, the northern conquerors saw the necessity of a closer union, and of relinquishing some of their private rights for public safety. They continued therefore to acknowledge the general who had led them to victory; he was considered as the head of the colony; he had the largest share of the conquered lands; and every free man, or every subordinate officer and soldier, upon receiving a share, according to his military rank, tacitly bound himself to appear against the enemies of the community. The new division of property, and the obligations consequent upon it, gave rise to a species of government formerly unknown, and which is commonly distinguished by the name of the FEUDAL SYSTEM. The idea of a feudal kingdom was borrowed from that of a military establishment. The victorious army, cantoned out in the country which it had seized, continued arranged under its proper officers, who were ordered to hold themselves in readiness to assemble, whenever occasion should require their united operations or counsels. But that system of policy, apparently so well calculated for national defence or conquest, and which prevailed for several centuries in almost every kingdom of Europe, did not sufficiently provide for the interior order and tranquillity of the state. The bond of political union was feeble; the sources of dissensions were many; and corruption was interwoven with the very frame of the constitution."

"The partial division of the conquered lands, which was chiefly swallowed up by the great officers, gave the few a dangerous ascendancy over the many. The king or general, by his superior allotment, had it amply in his power to reward past services, or attach new followers, for the purpose of future wars. With this view he parcelled out his lands, binding those on whom he bestowed them, to attend him in all his military enterprises, under the penalty of forfeiture. The nobles, or great officers, followed his example, annexing the same conditions to their benefices or grants of land, and appearing at the head of their numerous vassals, like so many independent princes, whenever their pride was wounded, or their property injured. They disputed the claims of the sovereign; they withdrew their attendance, or turned their arms against him. A strong barrier was thus formed against a general despotism in the state; but the nobles themselves, by means of their warlike retainers, were the tyrants of every inferior district, holding the people in servitude, and preventing any regular administration of justice, every one claiming that prerogative within his own domain. Nor was this the only pri-

vilege those haughty nobles usurped; they also extorted from the crown the right of coining money in their own name, and of carrying on war against their private enemies."

"In consequence of these encroachments on the royal prerogative, the powerful vassals of the crown obtained grants during life, and afterwards others, including their heirs, of such lands as they had originally held only during pleasure. And they appropriated to themselves titles of honour, as well as offices of power and trust, which became hereditary in many families. The ties which connected the principal members of the constitution with its head were dissolved; almost all ideas of political subjection were lost, and little appearance of feudal subordination remained. The nobility openly aspired at independancy; they scorned to consider themselves as subjects; and a kingdom, considerable in name and extent, was often a mere shadow of monarchy, and really consisted of as many separate principalities as it contained baronies. A thousand feuds and jealousies subsisted among the barons, and gave rise to as many wars. Hence every country in Europe, wasted or kept in continual alarm by those internal hostilities, were filled with castles and places of strength, in order to protect the inhabitants from the fury of their fellow-subjects. The particular manner in which the barbarians, or northern invaders, conducted their judicial proceedings, when they first settled in the provinces of the Roman empire, cannot now be distinctly ascertained; but their form of government, their manners, and a variety of other circumstances, lead us to believe it was nearly the same with that which prevailed in their original countries; where the authority of the magistrate was so limited, and the independency of individuals so great, that they seldom admitted any umpire but the sword. Our most antient historical records justify this opinion; they represent the exercise of justice in all the kingdoms of Europe and the ideas of men with respect to equity, as little different from those which prevail in a state of nature, and deform the first stages of society in every country. Resentment was almost the sole motive for prosecuting crimes; and the gratification of that passion, more than any view to the prosperity and good order of society, was the end, and also the rule in punishing them. He that suffered the wrong, was the only person who had a right to pursue the aggressor; to demand or remit the punishment: and he might accept of a compensation for any offence how heinous soever. The prosecution of criminals in the name and by the authority of the community, in order to deter others from violating the laws, now justly deemed the great object of legislation, was a maxim of jurisprudence then little understood in theory, and still less regarded in practice. The civil and criminal judges could, in most cases, do no more than appoint the lists, and leave the parties to decide their causes by the sword. Fierce and haughty nobles, unused to the restraints of law, considered it as infamous to give up to another the right of determining what reparation they should accept of, or with what vengeance they should rest satisfied: they scorned to appeal to any tribunal but their own right arm. And if men of inferior condition sometimes submitted to award or arbitration, it was only to that of the leader whose courage they respected, and whom in the field they had been accustomed to obey. Hence every chieftain became the judge of his tribe in peace, as well as its general in war. The pernicious effects of this power upon government, and upon manners, and

the many absurd modes of trial established before its abolition, we shall have frequent occasion to observe in the history of every modern kingdom. The feudal system, however, with all its imperfections, and the disorders to which it gave birth, was by no means so debasing to humanity as the uniform pressure of Roman despotism. Very different from that dead calm which accompanies peaceful slavery, and in which every faculty of the soul sinks into a state of somnolency, it kept the minds of men in continual ferment, and their hearts in agitation. If animosities were keen, friendships also were warm. The commonalty were unfortunately degraded to the condition of slaves, but the nobility were exalted to the rank of princes. The gentry were their associates; and the king, without the form of compact was in reality but chief magistrate, or head of the community, and could literally do no WRONG; or none at least with impunity."

Though the northern invaders wanted taste to value the Roman arts, laws, or literature, they generally embraced the religion of the conquered people. And the mild and benevolent spirit of Christianity would doubtless have softened their savage manners, had not their minds been already infected by a barbarous superstition; which, mingling itself with the Christian principles and ceremonies, produced that absurd mixture of violence, devotion, and folly, which has so long disgraced the Romish church, and which formed the character of the middle ages. The clergy were gainers, but Christianity was a loser, by the conversion of the barbarians. They rather changed the object than the spirit of their religion. The druids among the Gauls and Britons; the priests among the antient Germans, and among all the nations of Scandinavia, possessed an absolute dominion over the minds of men. These people, after embracing Christianity, retained their veneration for the priesthood. And unhappily the clergy of those times had neither virtue enough to preserve them from abusing, nor knowledge sufficient to enable them to make a proper use of their power. They blindly favoured the superstitious homage; and such of the barbrians as entered into holy orders, carried their ignorance and their original prejudices along with them. The Christian emperors of Rome and Constantinople had enriched the church: they had lavished on it privileges and immunities; and these seducing advantages had but too much contributed to a relaxation of discipline, and the introduction of disorders, more or less hurtful, which had altered the spirit of the professed friends of the gospel. Under the domination of the barbarians, the degeneracy increased, till the pure principles of Christianity were lost in a gross superstition; which, instead of aspiring to virtuous sanctity, endeavoured to conciliate the favour of God by the same means that satisfied the justice of men, or by those employed to appease their fabulous deities.

As the punishments due for civil crimes, among the northern conquerors, might be bought off by money, they attempted, in like manner, to bribe heaven, by benefactions to the church, in order to supersede all future inquest. And the more they gave themselves up to their brutal passions, to rapine, and to violence, the more profuse they were in this species of good works. They seem to have believed, says the Abbé de Malby, that avarice was the first attribute of the divinity, and that the saints made a traffic of their influence and protection. Hence the bon mot of Clovis; "St. Mattin serves his friends very well; but he makes them pay soundly for his trouble." "Our

treasure is poor," said Chilperic, the grandson of Clovis; "our riches are gone to the church: the bishops are the kings!" And indeed the superior clergy, who, by the acquisition of lands, added the power of fortune to the influence of religion, were often the arbiters of kingdoms, and disposed of the crown while they regulated the affairs of the state. There was a necessity of consulting them, because they possessed all the knowledge that then remained in Europe: they only knew any thing. The acts of their councils were considered as infallible decrees, and they spoke usually in the name of God; but, alas! they were only men.

As the interest of the clergy clashed with that of the laity, opposition and jealousy produced new disorders. The priests made use of artifice against their powerful adversaries: they invented fables to awe them into submission; they employed their spiritual arms in defence of their temporal goods; they changed the mild language of charity into frightful anathemas. What was deemed the religion of Jesus breathed nothing but terror. To the thunder of the church, the instrument of so many wars and revolutions, they joined the assistance of the sword. Warlike prelates, clad in armour, combated for their possessions, or to usurp those of others; and, like the heathen priests, whose pernicious influence was founded on the ignorance of the people, the Christian clergy sought to extend their authority, by confining all knowledge to their own order. They made a mystery of the most necessary sciences; truth was not permitted to see the light, and reason was fettered in the cell of superstition. Many of the clergy themselves could scarce read, and writing was chiefly confined to the cloisters; where a blind and interested devotion, equally willing to deceive and to believe, held the quill, and where lying chronicles and fabulous legends were composed, which contaminated history, religion, and the principles and the laws of society. Without arts, sciences, commerce, policy, principles, the European nations were all as barbarous and wretched as they could possibly be, unless a miracle had been wrought for the disgrace of humanity. Charlemagne indeed, in France, and Alfred the Great, in England, endeavoured to dispel this darkness, and tame their subjects to the restraints of law; and they were so fortunate as to succeed. Light and order distinguished their reigns. But the ignorance and barbarism of the age was too powerful for their liberal institutions: the darkness returned, after their time, more thick and heavy than formerly, and settled over Europe, and society again tumbled into chaos.

The ignorance of the West was so profound, during the ninth and tenth centuries, that the clergy, who alone possessed the important secrets of reading and writing, became necessarily the arbiters and the judges of almost all secular affairs. They comprehended within their jurisdiction, marriages, contracts, wills; which they took care to involve in mystery, and by which they opened to themselves new sources of wealth and power. Every thing wore the colour of religion; temporal and spiritual concerns were confounded: and from this unnatural mixture sprung a thousand abuses. Letters began to revive in the eleventh century, but made small progress till toward its close. A scientifical jargon, a false logic, employed about words, without conveying any idea of things, composed the learning of those times. It confounded all things, in endeavouring to analyse every thing. As the new scholars were mostly clergymen,

theological matters chiefly engaged their attention; and as they neither knew history philosophy, nor criticism, the labours were as futile as their enquiries, which were chiefly disgraceful to reason and religion. The conception of the blessed Virgin, and the digestion of the eucharist, were two of the principal objects of their speculation; and out of the last a third arose, which was, to know whether it was voided again? The disorders of government and manners keep pace, as they always will, with those of religion and learning. These disorders seemed to have attained their utmost height about the middle of the tenth century; then the feudal policy, the defects of which we have pointed out, was become universal. The dukes or governors of provinces, the marquises employed to guard the marches, and even the counts entrusted with the administration of justice, all originally officers of the crown, had made themselves masters of their duchies, marquisates, and counties. The king, indeed, as superior lord, still received homage from them for those lands which they held of the crown; and which, in default of heirs, returned to the royal domain. He had a right of calling them out to war, of judging them in his court by their assembled peers, and of confiscating their estates in case of rebellion; but, in all other respects, they themselves enjoyed the rights of royalty. They had their sub-vassals, or subjects; they made laws, held courts, coined money in their own name, and levied war against their private enemies. The most frightful disorders arose from this state of feudal anarchy. Force decided all things. Europe was one great field of battle; where the weak struggled for freedom, and the strong for dominion. The king was without power, and the nobles without principle: they were tyrants at home, and robbers abroad. Nothing remained to be a check upon ferocity and violence. The Scythians in their deserts could not be less indebted to the laws of society than the Europeans during the period under review.

The people, the most numerous, as well as the most useful class of the community, were either actual slaves, or exposed to so many miseries, arising from pillage and oppression, to one or other of which they were a continual prey, and often to both, that many of them made a voluntary surrender of liberty for bread and protection. What must have been the state of that government where slavery was an eligible condition? But, conformable to the observation of the philosophic Hume, there is a point of depression as well as of exaltation, beyond which human affairs seldom pass, and from which they naturally return in a contrary progress. This utmost point of decline society seems to have attained in Europe, as we have already said, about the middle of the tenth century; when the disorders of the feudal government, together with the corruption of taste and manners consequent upon these, were arrived at their greatest excess. Accordingly, from that era, we can trace a succession of causes and events, which, with different degrees of influence, contributed to abolish anarchy and barbarism, and introduce order and politeness.

Among the first of these causes we must rank chivalry; which, as the elegant and inquisitive Dr. Robertson remarks, though commonly considered as a wild institution, the result of caprice, and the source of extravagance, arose naturally from the state of society in those times, and had a very serious effect in refining the manners of the

European nations. The feudal state, as has been observed, was a state of perpetual war, rapine, and anarchy. The weak and unarmed were exposed every moment to insults, or injuries. The power of the sovereign was too limited to prevent these wrongs, and the legislative authority too feeble to redress them. There was scarce any shelter from violence and oppression, except what the valour and generosity of private persons afforded; and the arm of the brave was the only tribunal to which the helpless could appeal for justice.

The trader could no longer travel in safety, or bring unmolested his commodities to market. Every possessor of a castle pillaged them, or laid them under contribution; and many not only plundered the merchants, but carried off all the women that fell in their way. Slight inconveniences may be overlooked or endured, but when abuses grow to a certain height, the society must reform or go to ruin. It becomes the business of all to discover, and to apply such remedies as will most effectually remove the prevailing disorders. Humanity sprung from the bosom of violence, and relief from the hand of rapacity. Those licentious and tyrannic nobles, who had been guilty of every species of outrage, and every mode of oppression; who, equally unjust, unfeeling, and superstitious, had made pilgrimages, and had pillaged! who had massacred, and done penance! touched at last with a sense of natural equity, and swayed by the conviction of a common interest, formed associations for the redress of private wrongs, and the preservation of public safety. So honourable was the origin of an institution generally represented as whimsical.

The young warrior among the antient Germans, as well as among the modern knights, was armed, for the first time, with certain ceremonies proper to inspire martial ardour; but chivalry, considered as a civil and military institution, is as late as the eleventh century.

The previous discipline and solemnities of initiation were many and singular. The novice in chivalry was educated in the house of some knight, commonly a person of high rank, whom he served first in the character of page, and afterwards of squire; nor was he admitted to the supreme honour of knighthood, until he had given many striking proofs of his valour and address. The ceremony of initiation was very solemn. Severe fastings, and nights spent in a church or chapel in prayer; confessions of sins, and the receiving of the sacraments with devotion; bathing, and putting on white robes, as emblems of that purity of manners required by the laws of chivalry, were necessary preparations for this ceremony. When the candidate for knighthood had gone through all these, and other introductory formalities, he fell at the feet of the person from whom he expected that honour, and on his knees delivered to him his sword. After answering suitable questions, the usual oath was administered to him; namely, to serve his prince, defend the faith, protect the persons and reputations of virtuous ladies, and to rescue, at the hazard of his life, widows, orphans, and all unhappy persons groaning under injustice or oppression. Then the knights and ladies, who assisted at the ceremony, adorned the canditate with the armour and ensigns of chivalry, beginning with putting on the spurs, and ending with girding him with the sword. Seeing him thus accoutred, the king or nobleman, who was to confer the honour of knighthood, gave him the ac-

colade, or dubbing, by three gentle strokes with the flat part of his sword on the shoulder, or with the palm of his hand on the neck, saying, "In the name of God, St. Michael, and St. George, I make thee a knight! Be thou loyal, brave, and hardy."

Valour, humanity, courtesy, justice, honour, were the characteristics of chivalry, and to these were added religion; which, by infusing a large portion of enthusiastic zeal, carried them all to a romantic excess, wonderfully suited to the genius of the age, and productive of the greatest and most permanent effects both upon policy and manners. War was carried on with less ferocity, when humanity, no less than courage, came to be deemed the ornament of knighthood, and knighthood a distinction superior to royalty, and an honour which princes were proud to receive from the hands of private gentlemen; more gentle and polished manners were introduced, when courtesy was recommended as the most amiable of knightly virtues, and every knight devoted himself to the service of some lady; and violence and oppression decreased when it was accounted meritorious to check and to punish them.

A scrupulous adherence to truth, with the most religious attention to fulfil every engagement, but particularly those between the sexes, as more easily violated, became the distinguishing character of a gentleman, because chivalry was regarded as the school of honour, and inculcated the most delicate sensibility with respect to that point. And valour, seconded by so many motives of love, religion and virtue, became altogether irresistible.

But the beneficial effects of chivalry were strongly counteracted by other institutions of a less social kind. Some persons of both sexes, of most religions, and most countries, have, in all ages, secluded themselves from the world, in order to acquire a reputation for superior sanctity, or to indulge a melancholy turn of mind, affecting to hold converse only with the divinity. The number of these solitary devotees, however, in antient times, was few; and the spirit of religious seclusion, among the heathens, was confined chiefly to high southern latitudes, where the heat of the climate favours the indolence of the cloister. But the case has been very different in more modern ages: for although the monastic life had its origin among the Christians in Egypt, Syria, and Palestine, it rapidly spread, not only over all Asia and Africa, but also over Europe, and penetrated to the most remote corners of the North and West, almost at the same time that it reached the extremities of the East and South, to the great hurt of population and industry, and the obstruction of the natural progress of society. Nor were these the only consequences of the passion for pious solitude. As all who put on the religious habit, after the monastic system was completely formed, took a vow of perpetual chastity; the commerce of the sexes was represented by those holy visionaries as inconsistent with Christian purity; and the whole body of the clergy, in order to preserve their influence with the people, found themselves under the necessity of professing a life of celibacy. This condescension, which was justly considered as a triumph by the monks, increased their importance, and augmented the number of their fraternities. Nothing was esteemed so meritorious, during the period under review, as the building and endowing of monasteries. And multitudes of men and women of all conditions, but especially of the higher ranks, considering the pleasures of society as seducers to the pit

of destruction, and turning with horror from sensual delight, retired to mountains and deserts, or crowded into cloisters ; where, under the notion of mortifying the body and shutting all the avenues of the soul against the allurements of external objects, they affected an austerity that gained them universal veneration, and threw a cloud over the manners of the Christian world.

Mankind are no sooner in possession of the conveniences of life, than they begin to aspire after its elegancies. About the beginning of the fourteenth century, such a taste became general in Europe. The Italian cities, which had early acquired liberty, and obtained municipal charters, carried on, at that time, a flourishing trade with India, through the ports of the Red sea. They introduced into their own country manufactures of various kinds, and carried them on with great ingenuity and vigour. In the manufactures of silk in particular, they made so rapid a progress, that, about the middle of the fourteenth century, a thousand citizens of Genoa appeared in one procession, clad in silk robes. They attempted new arts ; among which may be numbered the art of taking impressions from engravings on plates of copper, the manufacture of crystal glass for mirrors, of paper made of linen rags, and of earthen ware in imitation of porcelain. And they imported from warmer climates the art of raising several natural productions, formerly unknown in Europe, which now furnish the materials of a lucrative and extended commerce ; particularly the culture of silk, and the plantation of the sugar-cane, originally the produce of Asia, and esteemed peculiar to the East. The sugar-cane was transplanted from the Greek islands into Sicily, from Sicily into Italy, from Italy into Spain, and from Spain and Portugal into the newly discovered islands in the Western ocean.

The discovery of those islands, and also of the American continent, was the effect of another modern invention, namely, the mariner's compass ; which, by rendering navigation at once more secure and more adventurous, facilitated the intercourse between remote nations, and may be said to have brought them nearer to each other. Commerce, during the fourteenth and fifteenth centuries, was by no means confined to the Italian states.

Flanders had long been as famous for the manufacture of linen and woollen cloth , as Italy was for that of silk. All the wool of England, before the reign of Edward III. except a small quantity wrought into coarse cloths for home consumption, was sold to the Flemings or Lombards, but chiefly to the former, and manufactured by them ; and it was not till the middle of the fifteenth century (so late were our ancestors of availing themselves of their natural commercial advantages !) that the English were capable of fabricating cloth for foreign markets. Bruges was at once the staple for English wool, for the woollen and linen manufactures of the Netherlands, for the naval stores and other bulky commodities of the North, and for the precious commodities of the East, as well as domestic productions, carried thither by the Italian states. It was the greatest emporium in Europe. Nothing so much advances society as an intercourse with strangers. In proportion as commerce made its way into the different countries of Europe, they successively turned their attention to those objects, and adopted those manners which occupy and distinguish polished nations. Accordingly we find the

Italians and Flemings taking the lead in the liberal as well as in the commercial arts, and exhibiting the first example of cultivated life. Painting and architecture were revived in Italy toward the end of the thirteenth century. They continued to make rapid progress under different masters, and were both carried to perfection during the period under review. Tapestry, then in high estimation, had long been manufactured, with the greatest ingenuity in the Low Countries; and the Flemings, in their turn, became painters and architects, before the rest of Europe were furnished with the necessary arts. Ghent and Bruges, Venice and Genoa, were splendid cities, adorned with stately buildings, while the inhabitants of London and Paris lived in wretched cottages, without so much as a chimney to carry up the smoke. The fire was made on the ground in the middle of the apartment, and all the family sat round it, like the Laplanders in their huts. This rude method of building and living continued to be common in considerable towns, both in France and England, so late as the beginning of the sixteenth century.

Learning and politeness are supposed to keep pace with each other. But this observation seems to have been made without due attention, to have been formed into a maxim by some dogmatist, and implicitly adopted by succeeding writers; for if applied to the abstract sciences, it seems equally void of foundation, whether we consider the fact itself, the nature of those sciences, or the manners of the literati in different ages. Politeness arises from the habits of social life, and the intercourse of men and nations; it is, therefore, more likely to accompany commerce than learning. But it must be allowed, at the same time, that manners receive their last polish from works of imagination and sentiment, which soften the mind by pictures of natural and moral beauty, and dispose it to tenderness and social affection. The first permanent step towards the revival of letters in Europe, was the erection of schools under lay preceptors. Alfred and Charlemagne, those early luminaries of the modern world, had shed a temporary lustre over the ages in which they lived. They had encouraged learning both by their example and patronage, and some gleams of genius began to break forth; but the promising dawn did not arrive at perfect day. The schools erected by these great monarchs were confined solely to the churches and monasteries, and monks were almost the only instructors of youth. The contracted ideas of such men, partly arising from their mode of life, partly from their religious opinions, made them utterly unfit for the communication of liberal knowledge. Science, in their hands, degenerated into a barbarous jargon, and genius again sunk in the gloom of superstition. A long night of ignorance succeeded. Learning was considered as dangerous to true piety, and darkness was necessary to hide the usurpations of the clergy, who were then exalting themselves on the ruins of the civil power. The antient poets and orators were represented as seducers to the path of destruction. Virgil and Horace were the pimps of hell, Ovid a lecherous fiend, and Cicero a vain declaimer, impiously elated with the talent of heathenish reasoning. Aristotle's logic alone was recommended, because it was found capable of involving the simplest arguments and perplexing the plainest truths. It became the universal science; and Europe, for almost three centuries, produced no composition that can afford pleasure to a classical reader. Incredible legends, unedifying homilies, and

trite expositions of scripture, were the only labours of the learned during that dark period.

But the gloom at last began to disappear, and the sceptre of knowledge was wrested from the hand of superstition. Several enlightened persons among the laity, who had studied under the Arabs in Spain, undertook the education of youth about the beginning of the eleventh century, in the chief cities of Italy; and afterwards in those of France, England, and Germany. Instruction was communicated in a more rational manner: more numerous and more useful branches of science were taught; a taste for antient literature was revived; and some Latin poems were written, before the close of the twelfth century, not unworthy of the latter times of the Roman empire. The human soul, during this period, seems to have roused itself, as from a lethargy. The same enthusiasm which prompted one set of men to signalize their valour in the Holy Land, inspired another with the ardour of transmitting to posterity the gallant actions of the former, and of animating the zeal of those pious warriors, by the fabulous adventures of former Christian heroes. These performances were composed in verse; and several of them with much elegance, and no small degree of imagination. But many bars were yet in the way of literary refinement. The taste of the age was too rude to relish the beauties of classical composition: the Latin language, in which all science was conveyed, was but imperfectly known to the bulk of readers; and the scarcity of parchment, together with the expence of transcribing, rendered books so extremely dear, as to be only within the reach of few. Learning, however, continued to advance, in spite of every obstruction; and the invention of paper in the fourteenth century, and of printing about the middle of the fifteenth, made knowledge so general within a century after, that Italy began to compare, in arts and in letters, her modern with her antient state, and to contrast the age of Leo X. with that of the second Cæsar. From these new manners arose a new species of composition, namely, the romance, or modern heroic fable. It was originally written in verse; and, by giving a new direction to genius, banished for a time that vein of antient poetry, which had been so successfully revived and cultivated during the eleventh and twelfth centuries. Modern poetry, however, lost nothing by this relapse. Had classical taste and judgment been so early established, imagination must have suffered: truth and reason, as an ingenious writer observes, would have chased before their time, those visions of illusive fancy which delight to hover on the gloom of superstition, and which form so considerable a part of our polite literature. We should still have been strangers to the beautiful extravagancies of romantic fabling. This new species of composition took its rise in the thirteenth century, among the troubadours or minstrels of Provence; and was originally written in the Provençal dialect, then the most polished and universal of any modern tongue. These troubadours, who seem to have been the lineal successors of the Celtic bards, had followed in crowds to the Holy Land, the princes and nobles by whom they were patronised. They had seen the riches and splendour of the oriental cities, and the pomp of oriental princes; they had beheld the greatest scene of war that modern times had yet exhibited. They had seen the combined armies of Europe and of Asia encamp in the plains of Palestine; they had also seen them engage. Their imagination was inflamed by the sumptuous

equipages, gorgeous banners, armorial cognizances, and grand pavilions, in which the champions of the cross strove to excel each other; but still more by the enthusiastic valour of the combatants. They had seen many wonderful things, and heard many marvellous tales; and they gave to the whole, on their return, the colouring of poetic fancy, heightened by all the exaggerations of Asiatic imagery, and filled with all the extravagancies of Asiatic fiction.

The ignorance and credulity of the age, the superstitious veneration paid to the heroes of the crusades, the frightful ideas formed of the infidels, and the distance of the country, made the wildest conceptions of the poet be received with all the avidity of truth. The romance became the favourite mode of composition; and as every kingdom in Europe had its valorous knights, every kingdom soon had its romances; and every romance was nearly the same. Whether the scene was laid in antient or in modern times, in Spain or in Syria, the same set of ideal beings were introduced, the same kind of plot was pursued, and the same manners were painted. A lady miraculously fair and chaste, and a knight more than humanly brave and constant, encountering monsters, and resisting the allurements of enchantresses, formed the ground-work of all those unnatural compositions.

Modern poetry, however, did not long remain in this rude state. The romance, which had its rise in the manners of chivalry, and which rendered them still more romantic, fell into disrepute as soon as those manners began to decline. It was succeeded by the allegorical tale; in which the virtues and vices, appetites and passions, took the place of human beings, and were made subservient to the design of the poet. This shadowy production was followed by the Italian epic; which, like the heroic poem of the Greeks, consists of a compound of mortal, immortal, and allegorical personages. Dante, Ariosto, and Tasso, are supposed to have carried it to perfection.

No sooner had the affairs of Europe become a little tranquil, than they were disturbed by the preaching of the crusades or warlike expeditions, which were undertaken to recover the land of Palestine from the dominion of the Saracens. During the eleventh, twelfth, and thirteenth centuries, they were persecuted with all the fury of religious antipathy, drained Europe of blood and treasure, and covered the shores of Asia with carnage and desolation.

Hitherto our attention has been principally directed to the gradual operation of those more secret causes which at length effected the civilization of Europe, but we must now record events of a political nature, by which the progress of society was in some instances retarded for a time, but in all ultimately promoted. It has been already hinted that the conquerors of Roman Europe were soon brought to embrace the religion of the conquered, and from being the zealous and superstitious votaries of Odin, became equally zealous, and equally superstitious in their attachment to the cross. Humanity was on the whole a gainer by this change. It is impossible to degrade the Christian religion so low, or to pollute it so totally, but it must still be found more friendly to mercy, temperance, and many other virtues, than the savage mythology of the north, which taught men to expect their immortal felicity in drinking beer and mead out of the skulls of their enemies.

The condition of the conquered must be considerably ameliorated, when the fierce victors were disposed to acknowledge them their superiors in knowledge, and their fathers in the faith. These benefits, and the evils with which they were accompanied, were experienced in France, Spain, and Italy in the fifth century, and in England, now occupied by the Saxons, in the eighth. Each of these kingdoms was divided into many small states, almost independent of each other, and continued for the two or three succeeding centuries the theatre of a succession of civil commotions.

A heavy storm was now collecting, ready to burst on the south of Europe. Mahomet, who erected a spiritual and temporal monarchy at Mecca, died in 632, and his countrymen, the Arabs or Saracens, soon after over-ran great part of Asia, and all that part of Africa which was under the Roman dominion. From Africa they passed over to Spain, and in the year 712 the decisive battle of Xerxes put an end to the empire of the Visigoths. Here they soon began to cultivate the arts of peace, and founded so many schools, mosques, and palaces, that Spain might be justly considered as one of the most highly civilized portions of the globe.

Meantime the more resolute of the Christians retreated to the mountains, and there began the little kingdoms of Oviedo, Leon, Arragon, Navarre, and Castile. The Mahometan empire became divided into many independent principalities, and both Christians and Arabs were agitated for many ages by too many civil contentions to enable either to make a final conquest of the other.

While Spain was thus bleeding under the sword of the Arabs, Italy was convulsed by the ambition of the bishops of Rome. About the middle of the eighth century they withdrew their allegiance from the emperor of Constantinople, and in the beginning of the ninth became possessed of a considerable temporal territory. From that time the papal power may be considered as of two kinds, the one the dominion of a prince over that part of Italy which is called the state of the church, and the other, that of an universal bishop of all those countries which have embraced the catholic religion.

About the same time that the pope became an independent prince, an empire was erected which was highly serviceable to his purpose. The first race of French kings had, in the eighth century, lost so much of their influence as to become dependent on the mayors of France, who enjoyed all the power of royalty without the ensigns and the name.

Pepin, in 751, laid aside even this mask of subjection, deposed his master, and, with the approbation of the pope, assumed the title of the king of France. His son Charlemagne was a wise and valiant prince, equally celebrated for his successful campaigns, his munificent encouragement of learning, and his zeal for the catholic faith. He possessed all France, Germany, part of Hungary, part of Spain, the Low Countries, and the continent of Italy, as far as Benevento.

His sons, among whom he divided his empire, had not the abilities of their father, so that, after a series of wars, conspiracies, and murders, it became extinct toward the latter end of the tenth century. The German empire was henceforth governed by native princes, and the family of Capet was established on the throne of France.

The northern countries yet remained unconquered and uncivilized, and sometimes

poured forth their numbers under the denominations of Danes, Norwegians, and Normans, to desolate the most cultivated parts of Europe. Those troubles were, however, brought to a termination about the end of the eleventh century, before which time the several colonies of Normans, as well as their countrymen who remained behind in Sweden, Norway, and Denmark, assumed the Christian name. Poland and Hungary had already set them the example; but Prussia remained pagan till it was subdued by the Teutonic knights, about the year 1300.

Yet these romantic expeditions, though barbarous and destructive in themselves, were followed by many important consequences, equally conducive to the welfare of the community and of the individual. All adventurers who assumed the cross being taken under the immediate protection of the church, and its heaviest anathemas denounced against such as should molest their persons or their property, private hostilities were for a time suspended or extinguished: the feudal sovereigns became more powerful, and their vassals less turbulent; a more steady administration of justice was introduced, and some advances were made towards regular government.

The commercial effects of the crusades were no less considerable than their political influences. Many ships were necessary to transport the prodigious armies which Europe poured forth, and also to supply them with provisions. These ships were principally furnished by the Venetians, the Pisans, and the Genoese; who acquired, by that service, immense sums of money, and opened to themselves, at the same time, a new source of wealth, by importing into Europe the commodities of Asia. A taste for these commodities became general. The Italian cities grew rich, powerful, and obtained extensive privileges. Some of them erected themselves into sovereignties, others into corporations or independent communities; and the establishment of those communities may be considered as the first great step towards civilization in modern Europe.

The feudal government had degenerated into a system of oppression. The nobles had reduced the great body of the people to a state of actual servitude, and the condition of those denominated free was little, if at all, more desirable. Not only the inhabitants of the country, but even whole cities and villages, held of some great lord, on whom they depended for protection; and the citizens were no less subject to his arbitrary jurisdiction, than those employed in cultivating the estates of their masters. Services of various kinds, equally disgraceful and oppressive, were exacted from them, without mercy or moderation; and they were deprived of the most natural and unalienable rights of humanity. They could not dispose of their effects by will, appoint guardians to their children, or even marry, without the consent of their superior lord. Men in such a condition had few motives to industry. Accordingly we find all the cities of Europe, before their enfranchisement, equally poor and wretched. But no sooner were they formed into bodies politic, governed by magistrates chosen from among their own members, than the spirit of industry revived, and commerce began to flourish.

Population increased with independency; the conveniences of life, with the means of procuring them; property gave birth to statutes and regulations; a scene of common

interest enforced them; and the more frequent occasions of intercourse among men and kingdoms, gradually led to a greater refinement in manners, and tended to wear off those national and local prejudices which create dissension and animosity between the inhabitants of different states and provinces. The manner in which these immunities were obtained was different in the different kingdoms of Europe. Some of the Italian cities acquired their freedom by arms, others by money: and in France and Germany, many of the great barons were glad to sell charters of liberty to the towns within their jurisdiction, in order to repair the expence incurred by the crusades. The sovereigns also granted, or sold, like privileges to the towns within the royal domain, in order to create some power that might counterbalance their potent vassals, who often gave law to the crown. The practice quickly spread over Europe; and before the end of the thirteenth century, its beneficial effects were generally felt.

These effects were no less extensive upon government than upon manners. Self-preservation had obliged every man, during several centuries, to court the patronage of some powerful baron, whose castle was the common asylum in times of danger; but towns surrounded with walls, and filled with citizens trained to arms, bound by interest, as well as the most solemn engagements, to protect each other, afforded a more commodious and secure retreat. The nobles became of less importance, when they ceased to be the sole guardians of the people; and the crown acquired an increase of power and consequence, when it no longer depended entirely upon its great vassals for the supply of its armies. The cities contributed liberally towards the support of the royal authority, as they regarded the sovereigns as the authors of their liberty, and their protectors against the domineering spirit of the nobles. Hence another consequence of corporation charters.

The inhabitants of cities having obtained personal freedom and municipal jurisdiction, soon aspired at civil liberty and political power. And the sovereigns, in most kingdoms, found it necessary to admit them to a share in the legislature, on account of their utility in raising the supplies for government; it being a fundamental principle in the feudal policy, that no free man should be taxed but with his own consent. The citizens were now free, and the wealth, the power, and the consequence which they acquired on their recovering their liberty, added weight to their claim to political eminence, and seemed to mark them out as an essential branch in the constitution. They had it much in their power to supply the exigences of the crown, and also to repress the encroachments of the nobles. In England, Germany, and even in France, the representatives of communities accordingly obtained, by different means, a place in the national council, as early as the beginning of the fourteenth century. Thus an intermediate power was established between the king and nobles, to which each had recourse alternately, and which sometimes opposed the one, and sometimes the other. It tempered the rigour of aristocratical oppression with a mixture of popular liberty, at the same time that it restrained the usurpations of the crown; it secured to the great body of the people, who had formerly no representatives, active and powerful guardians of their rights and liberties; and it entirely changed the spirit of the laws, by introducing into the statutes, and the jurisprudence of the European nations, ideas of equality, order, and

public good. To this new power that part of the people still in servitude, the vassals who resided in the country, and were employed in agriculture, looked up for freedom. They obtained it, though contrary to the spirit of the feudal polity. The odious names of master and slave were abolished. The husbandman became farmer of the same fields which he had formerly been compelled to cultivate for the benefit of another. He reaped a share of the fruits of his own industry. New prospects opened, new incitements were offered to ingenuity and enterprize. The activity of genius was awakened; and a numerous class of active and industrious men, who formerly had no political existence, were restored to society, and augmented the force and riches of the state.

The second great advance which society made during the period under review, was an approach toward a more regular administration of justice. The barbarous nations, who over-ran the Roman empire, and settled in its provinces, rejected the Roman jurisprudence with the same contempt they had spurned the Roman arts. Both respected objects of which they had no conception, and were adapted to a state of society with which they were then unacquainted. But as civilization advanced, they became sensible of the imperfection of their own institutions, and even of their absurdity. The trial by ordeal, and by duel, was abolished in most countries before the end of the thirteenth century, and various attempts were made to restrain the practice of private war; one of the greatest abuses in the feudal polity, and which struck at the foundation of all government. When society was thus emerging from barbarism, and men were become sensible of the necessity of order, a copy of Justinian's Pandects was discovered at Amalphi, in Italy; and although the age had still too little taste to relish the beauty of the Roman classics, it immediately perceived the merit of a system of laws, in which all the points most interesting to mankind, were settled with precision, discernment, and equity. All men of letters were struck with admiration at the wisdom of the antients: the Justinian code was studied with eagerness; the professors of civil law were appointed who taught this new science in most countries of Europe.

The effects of studying and imitating so perfect a model were, as might be expected, great. Fixed and general laws were established; the principles and the forms by which judges should regulate their decisions were ascertained; the feudal law was reduced into a regular system; the canon law was methodised; the loose uncertain customs of different provinces or kingdoms were collected and arranged with order and accuracy. And these improvements in the system of jurisprudence had an extensive influence upon society. They gave rise to a distinction of professions. Among rude nations, no profession is honourable but that of arms; and, as the functions of peace are few and simple, war is the only study. Such had been the state of Europe during several centuries. But when law became a science, the knowledge of which required a regular course of studies, together with long attention to the practice of courts, a new order of men naturally acquired consideration and influence in society. Another profession beside that of arms was introduced and reputed honourable among the laity: the talents requisite for discharging it were cultivated; the arts and virtues of peace were placed in their proper rank; and the people of Europe became accustomed to see men rise

to eminence in a civil as well as military employment. The study of the Roman law had also a considerable influence upon letters. The knowledge of a variety of sciences became necessary, in order to expound with judgment the civil code; and the same passion which made men prosecute the juridical science with so much ardour, made them anxious to excel in every branch of literature. Colleges and universities were founded, a regular course of studies was planned, and a regular set of professors established. Privileges of great value were conferred upon masters and scholars; academical titles and honours were invented, as rewards for the different degrees of literary eminence; and an incredible number of students, allured by these advantages, resorted to the new seats of learning. But a false taste unhappily infected all those seminaries, which is thus ingeniously accounted for by a learned and inquisitive writer. Most of the persons who attempted to revive literature in the twelfth and thirteenth centuries had received instruction, and derived their principle of science from the Greeks in the Eastern empire, or the Arabs in Spain and Africa. Both these people, acute and inquisitive to excess, corrupted the sciences which they cultivated. The Greeks rendered theology a system of speculative refinement, or endless controversy; and the Arabs communicated to philosophy a spirit of metaphysical and frivolous subtlety. Misled by these guides, the persons who first applied to science were involved in a maze of intricate inquiries. Instead of allowing their fancy to take its natural range, and produce such works of elegant invention as might have improved the taste, and refined the sentiments of the age; instead of cultivating those arts which embellish human life, and render it delightful, they spent the whole force of their genius in speculations as unavailing as they were difficult.

But fruitless and ill-directed as these speculations were, their novelty roused, and their boldness engaged the human mind: and although science was further circumscribed in its influence, and prevented, during several ages, from diffusing itself through society, by being delivered in the Latin tongue, its progress deserves to be mentioned, as one of the greatest causes which contributed to introduce a change of manners into Modern Europe.

That ardent, though mistaken spirit of inquiry which prevailed, put ingenuity and invention in motion, and gave them vigour: it led men to a new employment of their faculties, which they found to be agreeable as well as interesting; it accustomed them to exercises and occupations, that tended to soften their manners, and to give them some relish for those gentle virtues, which are peculiar to nations among whom science has been successfully cultivated.

It has been observed that the irruptions of the Christians into Asia, though occasioned by the mere fury of fanaticism, and accompanied with acts of the most atrocious cruelty, had nevertheless some beneficial effects on the state of society in Europe; but the reader is little prepared to admit, that an irruption of the British barbarians into Europe should be ultimately conducive to the same important purpose. Othman, from whom the present sultans descended, and to whom the Ottoman empire owes its establishment, fixed the seat of his government, at Prusa in Bithynia, about the beginning of the fourteenth century. His son, Orcan, advanced as far as the borders of the Propontis,

and Amurath, the son of Orcan, numbered the emperor of Constantinople among his tributaries.

The succeeding sultan Bajazet had laid siege to Constantinople, and had evidently reduced it to the brink of ruin, when he raised the siege to encounter Tamerlane the Great, emperor of Tartary, was defeated and ended his days in inglorious captivity.

The progress of the Turkish arms was now for some years repressed by the contentions of the sons of Bajazet, and afterwards by the valour of Hanniades and Scanderbeg; but they were again attended with victory in the latter part of the reign of Amurat II. and more especially in that of Mahomet his successor.

Though Mahomet II. was only twenty-one years of age when he ascended the Ottoman throne, he had already conceived the design of making Constantinople the seat of his empire, and nothing could divert him from his purpose. If he sometimes seemed to listen to terms of accommodation, it was only that he might lull his enemies into security, while he carried on his military preparations with unremitted assiduity. At last he cut off all communications with the city, both by sea and land, and laid siege to it in form. It was defended with the most desperate valour by the Greeks, but at length the heavy cannon and better fortune of the Ottomans prevailed, the city was taken by storm, and Constantine, its last Christian emperor, fell, valiantly fighting among a crowd of his countrymen.

During the three days and three nights in which the city was given up to plunder and massacre, many of the Greeks escaped on board five ships which lay in the habour. Among these unhappy refugees were many very learned men, who settled in Italy, and there revived the study of the Greek tongue, as well by teaching that language, as by furnishing Latin translations and notes to the classics. While the exiles were thus employed in reviving Greek literature in Italy, a few Dutch and German workmen were labouring with assiduity and success in bringing the art of printing to its present perfection.

The first rudiments of printing appear to have been imported from China, but the invention of moveable types is generally ascribed to Laurentius, a gentleman of Maerlem. It is said that walking in a wood near that city, he cut some letters on beech, which, for fancy-sake, being impressed upon paper, he printed two or three lines as a specimen for his grandchildren to follow. These having happily succeeded, he meditated greater things; and, first of all, with his son-in-law, Thomas Peter, invented a more glutinous ink, because, he found the common ink sunk and spread, and then formed whole pages of wood with letters cut upon them. He printed only on one side of the leaf, the backside of the pages being pasted together, that they might not by their nakedness discover their deformity. When Laurentius first devised his rough specimen of the art, can only be guessed at. He died in 1440 having published the Speculum Belgicum, and two editions of Donatus, all with different wooden types, which it is probable (considering the difficulties he had to encounter, and the many artists he had occasion to consult) cost him some years to execute; so that his first essay might be about 1430. Some of Laurentius's types were stolen from him by one of his servants, who fled with them to Mentz. Here a partnership was formed between Fust (who is

called Dr. Faustus) and Geinsfleg, who carried on the printing business in concert, and were joined in 1444 by Guttenburg, the brother of Geinsfleg, from Strasburg. Finding that wooden types were not sufficiently durable they invented large cut metal types, with which they printed the Bible, in 1450. A few years after Peter Schoeffer of Gernspeim, found out the method of cutting the characters in a matrix that the letters might be easily cast instead of being cut. Fust and Schoeffer concealed this improvement, by administering an oath of secrecy to all whom they entrusted, till the year 1462, when by the dispersion of their workmen at the sacking of Mentz, the invention was publicly divulged. From this time printing made a rapid progress in most of the principal towns in Europe; and by the middle of the next century had spread itself to Africa and America.

When the way was thus prepared for a further revival of learning, a race of men appeared, who have since been ridiculed under the appellation of critics, but were in reality the ornaments of the age in which they flourished, and well deserved to be honoured by all succeeding generations. It was well known that many valuable productions of the antients had been preserved in the libraries of abbeys and colleges, and now that the invention of printing had furnished an easy method of multiplying copies, it became desirable that these treasures of wisdom should be laid open to the world. The critics were well fitted to render this service to mankind. Abstracted from the business as well as the amusements of life, they laboured in collecting manuscripts, in elucidating their obscure passages, and, in some instances, in superintending the publication of the scriptures, the fathers, and the classics.

The attention of the learned was now drawn to the antients, who were studied and imitated with such astonishing ardour, that the reign of Leo X. was considered as the third golden age of learning. The poets Tasso, Ariosto, Sannazanius and Vida; the historians, Machiavel, Guicciardini and Paul Jarius; Erasmus, the celebrated critic and fine writer; and the painters, Raphael, Angelo, and Titian, are names well known and highly esteemed by all the friends of literature and taste. Philosophy was only wanting in the sixteenth century, to bring Italy into comparison with antient Greece, when Greece was in her glory.

As the bishops of Rome enjoyed the greatest prosperity when the sciences were almost unknown, and learning confined to an unintelligible jargon, that was named philosophy; so the age of Leo, when the empire of ignorance was overturned, was also the age of Reformation, that gave popery a wound from which it is not likely ever to recover.

The pope had now in the most audacious manner declared himself the sovereign of the whole world. All the parts of it which were inhabited by those who were not Christians, he accounted to be inhabited by nobody; and if Christians chose to possess any of these countries, he gave them full liberty to make war upon the inhabitants, and to treat them with no more humanity than they would have treated wild beasts. The countries if conquered were to be parcelled out according to the pope's pleasure; and dreadful was the situation of that prince who dared to dispute his will. Every thing was quiet, the Waldenses, Albigenses, Lolbards, and Hussites seemed al-

most extinct, and the whole Christian world supinely acquiesced in the enormous absurdities that were imposed upon them, when in 1517 the empire of superstition was suddenly shaken; and has ever since continued to decline. The person who made the first attack on the extravagant superstitions that prevailed was Martin Luther, professor of theology at Wittemburg, on the Elbe; where a university had been founded by Frederic, elector of Saxony. He first inveighed against indulgences from the pulpit, and afterwards published ninety-five theses on the subject. At first, however, he professed great deference for the see of Rome; but in 1520 began to avow his doubts respecting the divine origin of the papal authority, and soon after declared the pope to be that antichrist, or man of sin, whose appearance is foretold in many passages of the new testament.

The Reformation having thus begun at Wittemburg, was not long confined to that city, to Saxony, or to the empire. In 1520 the Franciscan friars, who had the care of promulgating indulgences in Switzerland, were opposed by Zuinglius, a man not inferior in knowledge to Luther himself. He proceeded with the greatest rigour, even at the very beginning, to overturn the whole fabric of popery. The magistrates of Zurich approved of his proceedings; and that whole canton, together with those of Bern, Basil, and Scafhausen, embraced his opinions. In 1527 the states of Sweden publicly renounced the religion of Rome, and, in 1539, their example was followed by those of Denmark. In the mean time several princes of the empire received the appellation of protestants; and after a long war, undertaken to defend their religious and civil liberties, against Charles V. had their claims confirmed by the Diet of Augsburg, which was held in 1555.

In the reign of Elizabeth the reformed religion was finally established in England, Scotland, and Ireland; and lastly in the United Provinces, as soon as they were able to shake off their dependance on the crown of Spain.

The beginning of the sixteenth century is not more remarkable for the revival of letters, and the Reformation of religion. than for the new system of policy which then began to be adopted. Hitherto each state depended chiefly on itself, and pursued its own separate interests; but from this time it became usual for nations, which were not themselves attached, to unite their forces with the vanquished party, in order to prevent the conqueror from accomplishing the destruction of his rival. To record the various instances in which the liberties of Europe have been endangered, and in which this system of policy has been recurred to with success, would oblige us to anticipate many things, which we shall have occasion to record in the progress of this work; we shall, therefore, in this place, only mention three of the most remarkable of these eras. They are each of them ages of high civilization, and whoever does not study them with attention, will read modern history with very trifling advantages. The first is the reign of Charles V. the second that of Lewis XIV. and the third has commenced with the Revolution in France.

Charles V. inherited the territories of three powerful sovereigns; his maternal grandfather, Ferdinand; his mother, Isabella; and his paternal grandfather, the emperor Maximilian. The extensive dominions of the house of Austria; the rich sovereignty of the

Netherlands, and Franche Compté; the entire possession of the great and warlike kingdom of Spain, together with that of Naples and Sicily; the newly discovered empires of Mexico and Peru; and lastly the imperial dignity, which was conferred on him on account of his ability to defend Europe against the Infidels, all united to raise him to the highest rank among Christian princes. Yet his ambitious designs were checked by France and Turkey, and more powerfully counteracted by his own love of popery and arbitrary power. Hence originated the German commotions, which ultimately increased the power of France and Sweden; the loss of the Netherlands, and the destruction of the Spanish Armada.

Lewis XIV. was a prince of like principles with Charles V; inferior to him in extent of dominion, but probably equal in strength, and certainly more successful in obtaining permanent advantages by arms or intrigue. Though opposed by a powerful confederacy, which stripped him of many of his conquests, he was permitted to seat his grandson on the throne of Spain, and thus unite the two kingdoms under the same family, though not under the same prince.

The events which have followed on the French Revolution are so recent as to be fresh on the recollection of every reader. We have witnessed an enormous waste of treasure and of lives, and what would have appeared a paradox at any other time, have seen that very nation, whose blood and treasure have been thus profusely wasted, extend its command over all the neighbouring states, and become the arbitress of one half of Europe. The balance of power exists no longer, France has overturned it in the west, and Russia in the east. Where these disorders will end, it is not easy to determine, but it may be asserted, without any exaggeration, that the present juncture is more alarming than the ages of Lewis XIV or Charles V. Yet some consolation remains. Our own country still continues free and independent, science is daily advancing towards perfection, Christianity triumphs over the attack which was so long meditated against it, by the companions of Voltaire; her influence is increased by the issue of the contest, and should she ultimately prevail, so far as to govern the conduct of nations, we have no reason to doubt but peace and righteousness will follow in her train, and more perfect happiness, than has yet been tasted by men, be diffused over every habitable region of the earth.


ASIA
from the latest
AUTHORITIES.
EUROPE
AMERICA
ARCTIC SEA
Nova Zembla
RUSSIAN EMPIRE
GOVERNMENT
OSTIACKS
TOBOLSK
SEA OF OCHOTSK
KAMTSCHATKA
EASTERN TARTARY
WESTERN TARTARY
KALMUCS
CHINA
COREA
NIPHON
ISLES OF JAPAN
BLACK SEA
CASPIAN SEA
NATOLIA
TURKEY
PERSIA
ARABIA
RED SEA
ARABIAN SEA
HINDOSTAN
THIBET
BAY OF BENGAL
PHILIPPINE ISLES
BORNEO
Celebes Sea
NEW GUINEA
THE CAROLINAS
LADRONE ISLES
EASTERN OCEAN
INDIAN OCEAN
AFRICA
Tropic of Cancer
Equinoctial Line
ISLES OF SUNDA
JAVA
SUMATRA



W. M. Craig del.t P. Wallis sculp.t

PART of the NATURAL HISTORY of

Published as the Act directs by [illegible]



ASIA.

CHAPTER II.

ASIA.——*Its situation, mountains, rivers, productions, and inhabitants.*

ASIA is bounded on the north by the Frozen ocean; on the east by the Pacific; on the south by the great Southern and Indian oceans; and on the west by the Red sea, Africa, the Mediterranean, and Europe. It consists of a vast undivided continent; of the peninsulas of Kamtschatka, Korea, China, India beyond the Ganges, Hindostan, Persia, Arabia, and of many thousand islands.

It is situated between 44° and 196° of east longitude, and 1° and 74° of north latitude From the Dardanelles to the most eastern shore of Tartary, it is 4740 miles in length; and from the most southern point of Malacca, to the most northern point of Nova Zembla, it is 4380 miles in breadth.

Asia may be divided into the following parts; Turkey in Asia, Arabia, the Mogul's empire, with the peninsulas of the Indies; Thibet, China, and Korea; Great and Little Buckaria, with Korasin; Tartary, Siberia, and the islands. The principal languages spoken in Asia are the modern Greek, the Turkish, the Russian, the Tartarian, the Persian, the Arabic, the Malayan, the Chinese, and the Japanese. The European languages are also spoken upon the coasts of India and China.

A chain of mountains begins in Nova Zembla, and stretches due south, to near the Caspian Sea, dividing Europe from Asia: about three or four degrees north of the Caspian sea, it bends to the south-east, traverses Western Tartary, and passing between the Tengis and Zaizan lakes, it then branches to the east and south. The eastern branch runs towards the shore of Korva and Kamtschatka. The southern branch traverses Turkeston and Thibet, separating them from India, and at the head of the kingdom of Ava, joins an arm stretching from the great eastern branch, and here forms the centre of a very singular radiation. Chains of mountains issue from it in every direction. Three or four of them keep very close together, dividing the continent into narrow slips, which have each a great river flowing in the middle, and reaching to the extreme points of Malacca, Cambodia, and Cochin-China. From the same central point proceeds another great ridge due east, and passes a little north of Canton in China. We called this a singular centre; for though it sends off so many branches, it is by no means the most elevated part of the continent. In the triangle which is included between the first southern ridge, (which comes from between the lakes Tanges and Zaizan) the great eastern ridge and its branch, which almost unites with the southern ridge, lies the Boutan and part of Tibet, and the many little rivers which occupy its surface, flow southward and eastward, uniting a little to the north of the centre often mentioned, and then pass through a gorge eastward into China. And it is further to be observed, that these great ridges do not appear to be seated on the highest parts of the country; for the rivers which correspond to them are at no great distance

from them, and receive their chief supplies from the other sides. This is remarkably the case with the great Oby, which runs almost parallel to the ridge, from the lakes to Nova Zembla. It receives its supplies from the east. The highest grounds (if we except the ridge of mountains which are boundaries) of the continent seem to be in the country of the Calmucs, about 95° east from London, and latitude 43° or 45° north. It is represented as a fine, though sandy country; having many little rivers, which lose themselves in the sand, or end in little salt lakes. This elevation stretches north-east to a great distance; and in this track we find the heads of the Irtish, Selenga, and Tunguskuaia (the great feeders of the Oby), the Dlenitz, the Lena, the Yana, and some other rivers, which all go off to the north. On the other side we have the great river Amur, and many smaller rivers, whose names are not familiar. The Hoango, the great river of China, rises on the south side of the great eastern ridge we have so often mentioned. This elevation, which is a continuation of the former, is somewhat of the same complexion, being sandy, and at present is a desert of prodigious extent. It is described, however, as interspersed with vast tracts of rich pasture, and we know that it was formerly the residence of a great nation, who came south, by the name of Turks, and possessed themselves of most of the richest kingdoms of Asia. In the south-western extremity of this country are found remains, not only of barbaric magnificence, but even of cultivation and elegance. It was a profitable privilege, granted by Peter the Great to some adventurers, to search these sandy deserts for remains of former opulence; and many pieces of delicate workmanship (though not in a style which we should admire,) in gold and silver were found. Vaults were discovered buried in the sand, filled with written papers, in a character wholly unknown; and a wall was found extending several miles, built with hewn stone, and ornamented with corniche and battlements.

But let us return to the consideration of the distribution of the rivers on the surface of the earth. A great ridge of mountains begins at the south-east corner of the Euxine sea, and proceeds eastward, ranging along the south side of the Caspian, and still advancing, unites with the mountains before mentioned in Thibet, sending off some branches to the south, which divide Persia, India, and Thibet. From the south side of this ridge flow the Euphrates, Tigris, Indus, Ganges, &c. and from the north the antient Oxus, and many unknown streams. There is a remarkable circumstance in this quarter of the globe. Although it seems to be nearest to the greatest elevation, it seems also to have places of the greatest depression. We have already said that the Caspian sea is lower than the Ocean. There is in its neighbourhood another great bason of salt water, the lake Aral, which receives the waters of the Oxus, or Gihon, which were said formerly to have run into the Caspian sea. There cannot, therefore, be a great difference in the level of these two basons, neither have they any outlet, though they receive great rivers. There is another great lake in the very middle of Persia, the Zara, or Zard, which receives the river Hindemend, of near 250 miles length, besides other streams. There is another such in Asia Minor. The sea of Sodom and Gomorrah is another instance. And in the high countries we mentioned, there are many small salt lakes, which receive little rivers, and have no outlet. The

lake of Zard, in Persia, however is the only one which indicates a considerable hollow of the country. It is now ascertained by actual survey that the sea of Sodom is considerably higher than the Mediterranean. This feature, however, is not peculiar to Asia. It pertains also to Africa. As Asia exceeds in magnitude the other two parts of our continent, Europe and Africa, so it is superior to them in the serenity of its air, the fertility of its soil, the deliciousness of its fruits, the fragrancy and balsamic qualities of its plants, spices, and gums ; the salubrity of its drugs, the quantity, variety, beauty, and value of its gems ; the richness of its metals, and the fineness of its silks and cottons. A great change indeed has happened in that part of it called Turkey, which has lost much of its antient splendour, and from the most populous and best cultivated spot in Asia, is become a wild and uncultivated desert. The other parts of Asia continue much in their former condition ; the soil being as remarkable for its fertility, as most of the inhabitants for their indolence, effeminacy, and luxury. This effeminacy is chiefly owing to the warmth of the climate, though in some measure heightened by custom and education ; and the symptoms of it are more or less visible as the several nations are seated nearer or further from the north. Hence the Tartars who live near the same latitude with us, are as brave, hardy, strong and vigorous, as any European nation. What is wanting in the robust frame of their bodies among the Chinese, Mogul Indians, and all the inhabitants of the more southern regions, is in a great measure made up to them by the vivacity of their minds, and ingenuity in various kinds of workmanship, which our most skilful mechanics have in vain endeavoured to imitate.

Asia has ever been considered, by believers in revelation, as the birth place and cradle of the human species. The garden of Eden, and the mountain of Ararat, have both of them been supposed to be placed in that region that lays between the Black Sea, the Caspian, and the Gulf of Persia ; and this opinion has been confirmed by the result of the enquiries of the immensely learned sir William Jones, speaking of the Arabs, the Tartars, and the Hindoos, he says, " The three races, therefore, whom we have already mentioned, (and more than three we have not yet found) migrated from Iran, as from their common country ; and thus the Saxon chronicle, I presume, from good authority, bring the first inhabitants of Britain from Armenia ; while a late very learned writer concludes, after all his laborious researches, that the Goths or Scythians came from Persia ; and another contends with great force, that both the Irish and old Britons proceeded severally from the borders of the Caspian ; a coincidence of conclusions from different media by persons wholly unconnected, which could scarce have happened, if they were not grounded on solid principles. We may, therefore hold this proposition firmly established, that Iran, or Persia in its largest sense, was the true centre of population, of knowledge, of languages, and of arts ; which, instead of travelling westward only, as it has been fancifully supposed, or eastward, as might with equal reason have been asserted, were expanded in all directions to all the regions of the world, in which the Hindoo race has settled under various denominations : but, whether Asia has not produced other races of men, distinct from the Hindoos, the Arabs, or the Tartars, or whether any apparent diversity may not have

sprung from an intermixture of those in different proportions, must be the subject of a future inquiry."

His valuable life was spared just long enough to enable him to complete his design, and he at length concluded that there were only these three races of men in Asia, and probably in no other part of the world; that the Arabians were descended from Shem, the Tartars from Japhet, and the Hindoos from Ham.

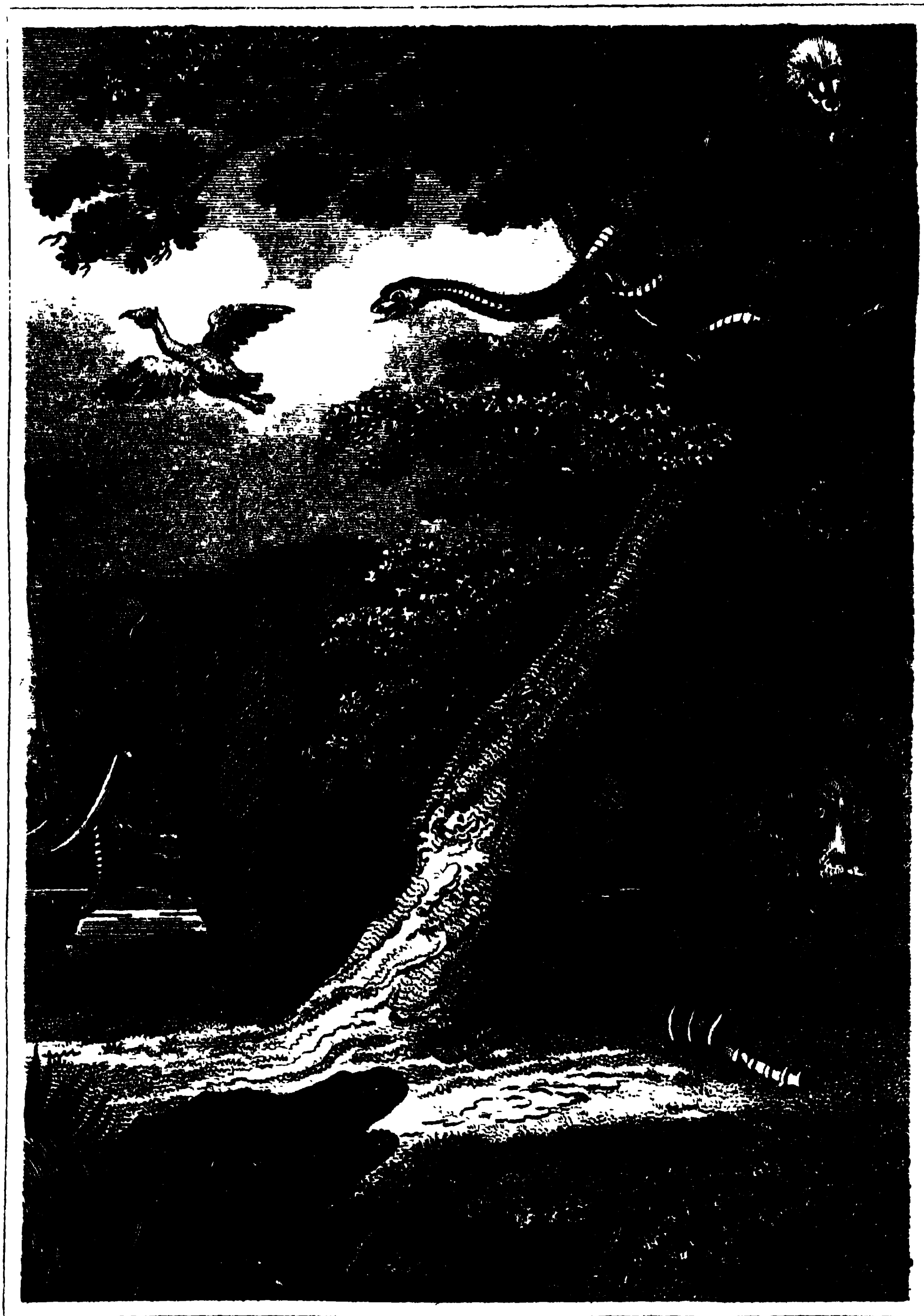
The Arabian race is distinguished from the Tartars and the Hindoos by their language, which admits of scarcely any compounds, their size, and the simplicity of their manners, and their inclination to indulge in the pleasures of imagination. They are allied by some affinity of language with several nations, who in different ages have laid claim to the attention of mankind. Such were the Jews, the Assyrians, the Babalonians, the Persians, the Palmyraneans, the Syrians, and finally to the same race must be referred the Saracens and the Moors.

The Hindoo race are remarkable for the pliable gentleness of their dispositions, and for the uncommon success with which they have applied to a variety of manufactures. They are supposed to have founded a very antient monarchy in Persia, and to have furnished inhabitants to both the peninsulas of India, and to the well-peopled countries of China, Thorea and Japan.

The most striking characteristics of the Tartars are flat faces, savage ferocity, and, in general, a total ignorance of every thing that polishes human nature. They have spread over the greatest part of the Russian empire, as well as all those wide uncultivated regions, which are distinguished by the denomination of Tartary.

Europe and Asia are the two quarters of the world which have generally enjoyed more of the blessings of civilization than Africa or America, and yet between Europe and Asia there is in many instances the most astonishing contrast. The manners of many Asiatic nations have continued nearly the same for 3000 years, whereas the manners of the Europeans have been perpetually varying. Asia has long cultivated the sciences but has never carried them beyond a very limited degree of excellence. Europe has received them from Asia at a much later period, but has advanced them almost to perfection. Asia has been the birth-place of almost every religion, the Patriarchal, the Jewish, the Theistical, the Sabean, the Magian, the Christain, the Mahometan, and probably the worship of images and the doctrines of Fo. Europe, on the contrary has only received the systems which have been imparted from Egypt and the East. On the whole, therefore, it appears that though Europe had not existed, the circumstances of the inhabitants of Asia had been nearly the same as at present, but if Asia had not existed the inhabitants of Europe would have remained to this day the most illiterate barbarians. Asia, the mother, has long since arrived at the full maturity of years, so that every alteration which takes place is only an indication of the debility of Age. Europe, the daughter, is now in all the vigour of youth, and every succeeding year is adding to her strength and her beauty.


AFRICA, from the latest AUTHORITIES.
ATLANTIC OCEAN
ETHIOPIAN SEA
SOUTHERN OCEAN
INDIAN OCEAN
Equinoctial Line
Tropic of Cancer
Tropic of Capricorn
SPAIN
NATOLIA
BARBARY
ZAHARA OR THE DESART
NEGROLAND
GUINEA
TRIPOLI
TOMBUCTOO
CASHNAH
BORNOU
NUBIA
ABYSSINIA
ADEL
AJAN
BENIN
DAHOMY
Gold Coast
Ivory Coast
LOWER ETHIOPIA
MAKOKO
LOANGO
CONGO
ANGOLA
BENGUELA
MONOMOTAPA
HOTTENTOTS
MADAGASCAR
CANARY ISLES
CAPE VERD ISLES
Cape Good Hope
Channel of Mozambique
West Longitude
Degrees E. from London.



W. M. Craig delin. *J. Barlow sculp.*

Part of the natural History of AFRICA.

[illegible]

CHAPTER III.

AFRICA——*Its situation, division, productions, and inhabitants.*

AFRICA lies south of Europe, and west of Asia. It is bounded on the north by the Mediterranean, which separates it from the former; on the north-east by the Red Sea, which divides it from Asia, and to which it is attached by a neck of land, called the Isthmus of Suez, about 60 miles over, separating the Mediterranean from the Red Sea; on the west, south, and east, it is bounded by the main ocean; so that it is properly a vast peninsula, bearing some faint resemblance of a pyramid; the base of which in the northern part, running along the shore of the Mediterranean; and the top of the pyramid is the most southerly point, called the Cape of Good Hope. Its greatest length from north to south is 4300 miles; reaching from latitude 37° N. to 35° S. and from longitude 17° W. to 50° E. Though the greatest part of this continent hath been in all ages unknown, both to the Europeans and Asiatics, its situation is more favourable than either Europe or Asia for maintaining an intercourse with other nations. It stands, as it were, in the centre of the three other quarters of the globe; and has thereby a much nearer communication with Europe, Asia, and America, than any one of these has with another. For, 1, It is opposite to Europe in the Mediterranen for almost 1000 miles, in a line from east to west, the distance seldom 100 miles, never 100 leagues, and sometimes not above 20 leagues. 2. It is opposite to Asia for all the length of the Red Sea, the distance sometimes not exceeding five leagues, seldom 50. 3. Its coast, for the length of about 2000, lies opposite to America at the distance of from 500 to 700 leagues, including the islands; whereas America, unless where it may be a terra incognito, is no where nearer Europe than 1000 leagues, and Asia than 2500.

As the equator divides the continent almost in the middle, the far greatest part of it is within the tropics; and of consequence the heat, in some places, is almost insupportable by Europeans; it being there greatly increased by vast deserts of burning sand. It cannot be doubted, however, that were the country well cultivated, it would be extremely fertile; and would produce in great abundance, not only the necessaries, but also the luxuries of life. It has been asserted, that the sugars of Barbadoes and Jamaica, as also the ginger, cotton, rice, pepper, pimento, cocoa, indigo, &c. of these islands would thrive in Africa to as much perfection as where they are now produced. Nor can it be doubted that the East Indian spices, the tea of China and Japan, the coffee of Mocha, &c. would all thrive in some parts of the African coast; as this continent has the advantage of feeling no cold, the climate being either very warm or very temperate.

Whatever may be the case with the internal parts of Africa, it is certain that its coasts are well watered with many considerable rivers. The Nile and the Niger may be reckoned among the largest in any part of the world, America excepted. The first dis-

charges itself into the Mediterranean, after a prodigious course from its source in Abyssinia. The origin neither of the Nile nor of the Niger, is very certainly known; but that of the latter is supposed to run through a track of land little less than 3000 miles. Both these rivers annually overflow their banks, fertilizing by that means the countries through which they pass. The Gambia and Senegal rivers are said to be only branches of the Niger.

Many vast ridges of mountains also run through different parts of this continent; but their extent is very little known. Some of the most remarkable are 1. Those called the Atlas, lying between the 20 and 25th degree of north latitude, and supposed almost to divide the continent from east to west. 2. The mountains of the Moon, so called on account of their great height, supposed to be boundaries between Abyssinia and some of the interior kindoms. 3. The mountains of Sierra Leona, so called on account of their abounding with lions, and likewise supposed to be the boundaries of some of the nations. 4. Those called by the antients the mountains of God, on account of their being subject to perpetual thunder and lightning. Of all these, however, little more is known than their names.

Africa produces a great variety of fierce and formidable animals, lions, tigers, leopards, panthers, wolves, elephants, rhinoceri, and crocodiles, with serpents and scorpions, both of them of enormous magnitude, and the most deadly poison.

To what we have already said concerning the produce of Africa, we may add, that no part of the world abounds with gold and silver in a greater degree; it is, therefore, surprizing that neither the antient nor modern Europeans, notwithstanding their extravagant and insatiable thirst after gold and silver, should have endeavoured to establish themselves effectually, in a country much nearer to them, than either America or the East Indies; and where the objects of their desire may be found in equal, if not greater plenty.

Next to gold and silver, copper is the most valuable metal; and on this continent is found in great plenty, insomuch that the mountains of Atlas above mentioned, are said to be composed of copper ore. In short Africa though a full quarter of the globe, stored with an inexhaustible treasure, and capable of producing almost every necessary, conveniency, and luxury of life, within itself, seems to be utterly neglected, both by its own inhabitants and all other nations; the former being in a savage state, and incapable of enjoying the blessings bestowed on them by nature; and the latter, taking no further notice of the inhabitants or their land, than to obtain at the easiest rate, what they procure with as little trouble as possible, or to carry them off for slaves to their plantations in America. Only a small part of this continent was known to the antients, viz. the kingdom of Egypt, and the northern coast, comprehending little more than what is now known by the name of Barbary. It was divided into Africa Propria, and Africa Interior. Africa Propria comprehended only the Carthaginian territories: Africa Interior comprehended all other nations to the southward of these territories, or those at a greater distance from Rome. The only kingdom, however, with which the Romans had any connection were the Numidians, the Mauritania, and the Gaetul. All these, as well as Egypt, were swallowed up by that enormous power,

and reduced to the condition of Roman provinces. But the Romans never seem to have penetrated beyond the tropic of Cancer. There appears, indeed, to have been some intercourse between them and the Ethiopians ; but the latter always preserved their liberty : and we find their queen Candace mentioned, in the times of the apostles when the Roman power was at its highest pitch. Between the tropic of Cancer, and the equinoctial line, a multitude of savage nations were supposed to have their residence, known by the names of Melanogœtuli, Nigritæ, Blemmyes, Dolopes, Astacuri, Lotophagi, Ichthyophagi, and Elephantophagi.

But that Africa was a peninsula, seems to have been totally unknown both to the Europeans and Asiatics for many ages. It is probable, indeed, that some of the Phœnicians, and their offspring, the Carthaginians, were not so ignorant ; as they carried navigation to a much greater height than either the Greeks or Romans ; but their discoveries were all concealed with the greatest care, lest other nations should reap the benefit of them ; and accordingly we can now find no authentic accounts concerning them. The navigation round Africa in particular is recorded by the Greek and Roman writers, rather as a strange amusing tale, than as real transactions ; and as neither the progress of the Phœnician and Carthaginian discoveries, nor the extent of their navigation, were communicated to the rest of mankind, all memorials of their extraordinary skill in naval affairs, seem in a great measure to have perished when the maritime power of the former was annihilated by Alexander's conquest of Tyre, and the empire of the latter was overturned by the Romans. That the peninsula of Africa, however, was in reality sailed round by the Phœnicians, we have an indisputable authority to prove ; for some of that nation undertook the voyage at the command of Necho, king of Egypt, about 604 years before the Christian era. They sailed from a part in the Red Sea, and after three years returned to the Mediterranean ; and the accounts at that time are unanswerable proofs to us that this voyage was really accomplished. They pretended, that having sailed for some time, the sun became more and more vertical, after which he appeared in the north, and seemed to recede from them : that as they returned the sun gradually seemed to move southwards ; and after becoming vertical once more appeared, though in the south side of them, as before they set out. This which we know must certainly have been the case, was deemed incredible at that time, and universal ignorance concerning the extent of this continent prevailed to the 15th century. The first attempts towards obtaining a knowledged of Africa was made by the Portuguese in 1412. Notwithstanding their vicinity, they had never ventured to pass Cape Nor, situated in about N. latitude 27° : it had received its name from a supposed impossibility of passing it. This year they proceeded 160 miles farther to Cape Bojadar, which stretching a considerable way into the Atlantic Ocean, with rocky clifts, appeared so dreadful to the navigators, that they returned without any attempt to pass it. In an attempt to double this formidable cape, they discovered the Madeira Island in 1419 : but Cape Bojadar continued to be the boundary of their continental discoveries till 1433, when they penetrated between the tropics, and in a few years discovered the river Senegal, Cape de Verd, and the islands which lie off that promontory, In 1449 the western islands, called the Azores, were discovered ;

and in 1471 they first penetrated beyond the line; and were surprised to find that the torrid zone, contrary to the opinions of the antients, who imagined it to be burnt up with heat, was not only habitable, but fertile and populous. In 1484, they proceeded 1500 miles beyond the line, so that they began to entertain hopes of finding that way a passage to the East Indies; and two years afterwards the Cape of Good Hope was discovered by Bartholemew de Diaz; but it was not till the year 1497 that the Portuguese under Vasques de Gama, actually doubled this cape, and discovered the true shape of the continent.

Thus the coast of Africa was made perfectly known; and probably the knowledge concerning its interior parts would have been much greater than it is, had not the general attention been called off from this continent by the discovery of America in 1492. The Romans, for a long time maintained their power in Africa: but in the year 426 Bonifacius, supreme governor of all the Roman dominions, in this quarter, being compelled to revolt by the treachery of another general, called Ætuis, and finding himself unable to contend with the whole strength of the Roman empire, called in Genseric, king of the Vandals, to his aid; who thereupon abandoned the provinces he had seized in Europe, and passed over into Africa. Bonifacius, however, being soon after reconciled to his empress Placidia, endeavoured in vain to persuade the Vandals to retire. Hereupon a war ensued, in which the barbarians proved victorious, and quickly over-run all the Roman provinces in Africa. In the year 435 a peace was concluded; when Numidia, and some other countries, were ceded to the Vandals, who soon after seized all the rest. These barbarians did not long enjoy their ill-gotten possessions; for about the year 533, Belisarius drove them out, annexing the provinces to the eastern empire; and in 647, the Saracens having conquered Mesopotamia, Egypt (which antiently was not included in the meaning of the word Africa,) Phœnicia, Arabia, and Palestine, broke, like a torrent into Africa, which they quickly subdued. This vast empire being in 936, divided into seven kingdoms, the African states retained their independency long after the others were subdued by the Turks; but in the beginning of the sixteenth century, being afraid of falling under the yoke of Spain, they invited the Turks to their assistance; who first protected, and then enslaved them. They still continue in a kind of dependence on the Ottoman empire. They are not, however, properly speaking, the subjects of the Grand Seignior, but call him their protector, paying him an annual tribute. On the coast, the natives are almost all addicted to piracy; and with such success they have carried on their employment, that the greatest powers in Europe are become their tributaries, in order to procure liberty to trade in the Mediterranean.

Concerning even those states which are nearest to Europe, very little is known; but the interior nations are scarce known by name: nor do almost any two of the most learned moderns agree in their division of Africa into kingdoms; and the reason is that scarcely any traveller hath ever penetrated into these inhospitable regions. According to the best account concerning these parts of Africa lying beyond Egypt and Barbary, they are divided in the following manner. On the western coast to the south of Barbary lie the kingdoms of Biledulgerid, Zaara, Negroland, Loango, Congo, Angola, Benguela

and Terra de Nata; on the western coast beyond Egypt are those of Nubia, Adel, Ajan, Zanguebar, (between these two a huge desert is interposed) Monomotapa and Sofola. In the interior parts of the kingdoms of Lower Ethiopia, Abex, Monomugi and Matanan are made mention of. The southermost part called Caffraria, is well known, for the habitation of Hottentots.

In many material circumstances the inhabitants of this extensive continent agree with each other. If we except the people of Abyssinia, who are tawny, and profess a mixture of Christanity, Judaism, and paganism, they are all of a black complexion. In their religion, except on the sea coasts, which have been visited and settled by strangers, they are pagans; and the form of government is every where monarchial. Few princes, however, possess a very extensive jurisdiction; for as the natives of this part of Africa are grossly ignorant in all the arts of utility or refinement, they are little acquainted with one another, and generally united in small societies, each governed by its own prince. Abyssinia, indeed, as well as in Congo, Loango, and Angola, we are told of powerful monarchs; but on examination, it is found that the authority of these princes stands on a precarious footing, each tribe, or separate body of their subjects, being under the influence of a petty chieftain of their own, stiled Negus, to whose commands, however contrary to those of Negascha Negascht, or king of kings, they are always ready to submit.

The fertility of a country so prodigiously extensive, might be supposed more various than we find it is: in fact, there is no medium in this part of Africa with regard to the advantage of its soil; it is either perfectly barren, or extremely fertile; this arises from the intense heat of the sun, which, where it meets sufficient moisture, produces the utmost luxuriancy, and in those countries where there are few rivers, reduces the surface of the earth to a barren sand; of this sort are the countries of Anian, and Zaara, which for want of water, and consequently of all other necessaries, are reduced to perfect deserts, as the name of the latter denotes. In those countries, on the other hand, where there is plenty of water, and particularly where the rivers overflow the land part of the year, as in Abyssinia, the productions of nature, both of the animal and vegetable kinds, are found in the highest perfection, and greatest abundance. The countries of Nandingo, Ethiopia, Congo, Angola, Batua, Truticui, Monomotapa, Casteti, and Monomugi are extremely rich in gold and silver. The baser metals, likewise are found in these and many other parts of Africa. But the persons of the natives make the most considerable article in the produce and traffic of this miserable quarter of the globe.

Of late, however, we observe with pleasure that attempts to civilize Africa have been made, feeble indeed when compared with the extent of their object, but attended with so great a degree of success as to promise the most important ultimate advantages.

CHAPTER IV.

AMERICA——*Its situation, and extent, climate, productions, and inhabitants, and its discovery by the Europeans.*

THIS vast country extends from the 80th degree north, to the 56 degree of south latitude ; and, where its breadth is known, from the 35th to the 136th degree west longitude from London ; stretching between 8000 and 9000 miles in length, and in its greatest breadth 3690. It sees both hemispheres, has two summers and a double winter, and enjoys all the variety of climates which the earth affords. It is washed by the two great oceans. To the eastward it has the Atlantic, which divides it from Europe and Africa ; to the west it has the Pacific, or Great South Sea, by which it is separated from Asia. By these seas it may, and does carry on a direct commerce with the other three parts of the world.

America is not of equal breadth throughout its whole extent ; but is divided into two great continents, called North and south America, by an isthmus 1500 miles long, and which at Darien, about lat. 9° N, is only 60 miles over. This isthmus forms, with the northern and southern continents, a vast gulf, in which lies a great number of islands, called the West Indies, in contradistinction to the eastern parts of Asia, which are called the East Indies.

Between the New World and the Old, there are several very striking differences ; but the most remarkable is the general predominance of cold throughout the whole extent of America. Though we cannot, in any country, determine the precise degree of heat, merely by the distance of the equator, because the elevation above the sea, the nature of the soil, &c. affect the climate ; yet, in the antient continent, the heat is much more in proportion to the vicinity to the equator than in any part of America. Here the rigour of the frigid zone extends over half that which should be temperate by its position. Even in those latitudes where the winter is scarcely felt on the Old continent, it reigns with great severity in America, though during a short period. Nor does this cold, prevalent in the New World, confine itself to the temperate zones ; but extends its influence to the torrid zone also, considerably mitigating the excess of its heat. Along the eastern coast, the climate, though more similar to that of the torrid zone in other parts of the earth, is nevertheless considerably milder than in those countries of Asia and Africa which lie in the same latitude. From the southern tropic to the extremity of the American continent, the cold is said to be much greater than in parallel northern latitudes even of America itself.

For this so remarkable difference between the climate of the New continent and the Old, various causes have been assigned by different authors. The following is the opinion of the learned Dr. Robertson on this subject. " Though the utmost extent of America towards the north be not yet discovered, we know that it advances nearer to

the pole than either Europe or Asia. The latter have large seas to the north, which are open during part of the year; and, even when covered with ice, the wind that blows over them is less intensely cold than that which blows over land in the same latitudes. But, in America, the land stretches from the river St. Lawrence towards the pole, and spreads immensely to the west. A chain of enormous mountains, covered with snow and ice, runs through all this dreary region. The wind, passing over such an extent of high and frozen land, becomes so impregnated with cold, that it acquires a piercing keenness, which it retains in its progress through warmer climates; and is not entirely mitigated, until it reaches the gulf of Mexico. Over all the continent of North America, a north-westerly wind and excessive cold are synonymous terms. Even in the most sultry weather, the moment that the wind veers to that quarter, its penetrating influence is felt, in a transition from heat to cold, no less violent than sudden. To this powerful cause we may ascribe the extraordinary dominion of cold, and its violent inroads into the southern provinces in that part of the globe."

"Other causes, no less remarkable, diminish the active power of heat in those parts of the American continent which lie between the tropics. In all that portion of the globe, the wind blows in an invariable direction from east to west. As this wind holds its course across the antient continent, it arrives at the countries which stretch along the western shore of Africa, inflamed with all the fiery particles which it hath collected from the sultry plains of Asia, and the burning sands in the African deserts. The coast of Africa is accordingly the region of the earth which feels the most fervent heat, and is exposed to the unmitigating ardour of the torrid zone. But this same wind, which brings such an accession of warmth to the countries lying between the river of Senegal and Caffraria, traverses the Atlantic ocean before it reaches the American shore. It is cooled in its passage over this vast body of water, and is felt as a refreshing gale along the coasts of Brazil and Guiana, rendering those countries, though amongst the warmest in America, temperate, when compared with those which lie opposite to them in Africa. As this wind advances in its course across America, it meets with immense plains, covered with impenetrable forests, or occupied by large rivers, marshes, and stagnated waters, where it can recover no considerable degree of heat. At length it arrives at the Andes, which run from north to south through the whole continent. In passing over their elevated and frozen summits, it is so thoroughly cooled, that the greater part of the countries beyond them hardly feel the ardour to which they seem exposed by their situation."

"In the other provinces of America, from Terra Firma westward to the Mexican empire, the heat of the climate is tempered, in some places, by the elevation of the land above the sea; in others by their extraordinary humidity; and in all by the enormous mountains scattered over this tract. The islands of America in the torrid zone are either small or mountainous, and are fanned alternately by refreshing sea and land breezes."

"The causes of the extraordinary cold toward the south limits of America, and in the seas beyond it, cannot be ascertained in a manner equally satisfying. It was long supposed, that a vast continent, distinguished by the name of Terra Australis Incog-

nita, lay between the southern extremity of America and the antarctic pole. The same principles which account for the extraordinary degree of cold in the northern regions of America, were employed in order to explain that which is felt at Cape Horn and the adjacent countries. The immense extent of the southern continent, and the rivers which it poured into the ocean, were mentioned and admitted by philosophers as causes sufficient to occasion the unusual sensation of cold, and the still more uncommon appearances of frozen seas in that region of the globe. But the imaginary continent, to which such influence was ascribed, having been searched for in vain, and the space which it was supposed to occupy having been discovered to be an open sea, new conjectures must be formed with respect to the causes of a temperature of climate, so extremely different from that which we experience in countries removed at the same distance from the opposite pole."

"The most obvious and probable cause of this superior degree of cold towards the southern extremity of America, seems to be the form of the continent there. Its breadth gradually decreases as it stretches from St. Antonio southwards, and from the bay of St. Julian to the straits of Magellan its dimensions are much contracted. On the east and west sides it is washed by the Atlantic and Pacific oceans. From its southern point, it is probable that an open sea stretches to the antarctic pole. In whichever of these directions the wind blows, it is cooled before it approaches the Megellanic regions, by passing over a vast body of water; nor is the land there of such extent, that it can recover any considerable degree of heat in its progress over it. These circumstances concur in rendering the temperature of the air in this district of America more similar to that of an insular, than to that of a continental climate; and hinder it from acquiring the same degree of summer heat with places in Europe and Asia, in a corresponding northern latitude."

"The north wind is the only one that reaches this part of America, after blowing over a great continent. But, from an attentive survey of its position, this will be found to have a tendency rather to diminish than augment the degree of heat. The southern extremity of America is properly the termination of the immense ridge of the Andes, which stretches nearly in a direct line from north to south, through the whole extent of the continent. The most sultry regions in South America, Guiana, Brazil, Paraguay, and Tucuman, lie many degrees to the east of the Magellanic regions. The level country of Peru, which enjoys the tropical heats, is situated considerably to the west of them. The north wind, then, though it blows over land, does not bring to the southern extremity of America an increase of heat collected in its passage over torrid regions; but, before it arrives there, it must have swept along the summit of the Andes, and come impregnated with the cold of that frozen region."

Another particularity in the climate of America, is its excessive moisture in general. In some places, indeed, on the western coast, rain is not known; but, in all other parts, the moistness of the climate is as remarkable as the cold. The forests wherewith it is every where covered, no doubt, partly occasion the moisture of its climate; but the most prevalent cause is the vast quantity of water in the Atlantic and Pacific oceans, with which America is environed on all sides. Hence those places where the continent is

narrowest are deluged with almost perpetual rains, accompanied with violent thunder and lightning, by which some of them, particularly Porto Bello, are rendered in a manner uninhabitable.

This extreme moisture of the American climate is productive of much larger rivers there than in any other part of the world. The Danube, the Nile, the Indus, or the Ganges, are not comparable to the Mississippi, the river St. Lawrence, or that of the Amazons; nor are such large lakes to be found any where as those which North America affords. To the same cause we are also partly to ascribe the excessive luxuriance of all kinds of vegetables in almost all parts of this country. In the southern provinces, where the moisture of the climate is aided by the warmth of the sun, the woods are almost impervious, and the surface of the ground is hid from the eye, under a thick covering of shrubs, herbs, and weeds. In the northern provinces, the forests are not encumbered with the same luxuriance of vegetation; nevertheless, they afford trees much larger of their kind than what are to be found any where else.

From the coldness and the moisture of America, an extreme malignity of climate has been inferred, and asserted by M. de Pau, in his Recherches Philosophiques. Hence, according to his hypothesis, the smallness and irregularity of the nobler animals, and the size and enormous multiplication of reptiles and insects.

But the supposed smallness and less ferocity of the American animals, the Abbé Clavigero observes, instead of the malignity, demonstrates the mildness and bounty of the clime, if we give credit to Buffon, at whose fountain M. de Pau has drank, and of whose testimony he has availed himself against Don Pernetty. Buffon, who, in many places of his Natural History, produces the smallness of the American animals as a certain argument of the malignity of the climate of America, in treating afterwards of savage animals, in Tom. II. speaks thus: "As all things, even the most free creatures, are subject to natural laws, and animals, as well as men, are subjected to the influence of climate and soil, it appears that the same causes which have civilized and polished the human species in our climates, may have likewise produced similar effects upon other species."

The wolf, which is, perhaps, the fiercest of all the quadrupeds of the temperate zone, is, however, incomparably less terrible than the tyger, the lion, and the panther, of the torrid zone; and the white bear and hyena of the frigid zone. In America, where the air and the earth are more mild than those of Africa, the tyger, the lion, and the panther, are not terrible but in the name. They have degenerated, if fierceness, joined to cruelty, made their nature: or, to speak more properly, they have only suffered the influence of the climate: under a milder sky, their nature also has become more mild. From climes which are immoderate in their temperature, are obtained drugs, perfumes, poisons, and all those plants whose qualities are strong. The temperate earth, on the contrary, produces only things which are temperate; the mildest herbs, the most wholesome pulse, the sweetest fruits, the most quiet animals, and the most humane men, are the natives of this happy clime. As the earth makes the plants; the earth and plants make animals; the earth, the plants, and the animals make man. The physical qualities of man, and the animals which feed on other animals, depend, though more

remotely, on the same causes which influence their dispositions and customs. This is the greatest proof and demonstration that in temperate climes every thing becomes temperate, and that in intemperate climes every thing is excessive; and that size and form, which appear fixed and determinate qualities, depend, notwithstanding, like the relative qualities, on the influence of climate. The size of our quadrupeds cannot be compared with that of the elephant, the rhinoceros, or the sea-horse. The largest of our birds are but small, if compared with the ostrich, the condor, and cassowary." So far Mr. Buffon, whose text we have copied, because it is contrary to what M. de Pau writes against the climate of America, and to Buffon himself in many other places.

If the large and fierce animals are natives of intemperate climes, and small and tranquil animals of temperate climes, as Mr. Buffon has here established; if mildness of climate influence the disposition and customs of animals, M. de Pau does not well deduce the malignity of the climate of America from the smaller size and less fierceness of its animals; he ought rather to have deduced the gentleness and sweetness of its climate from this antecedent. If, on the contrary, the smaller size and less fierceness of the American animals, with respect to those of the old continent, are a proof of their degeneracy, arising from the malignity of the clime, as M. de Pau would have it, we ought, in like manner, to argue the malignity of the climate of Europe, from the small size and less fierceness of its animals, compared with those of Africa. If a philosopher of the country of Guinea should undertake a work in imitation of M. de Pau, with this title, Recherches Philosophiques sur les Européens, he might avail himself of the same argument which M. de Pau uses, to demonstrate the malignity of the climate of Europe, and the advantages of that of Africa. The climate of Europe, he would say, is very unfavourable to the production of quadrupeds, which are found incomparably smaller, and more cowardly than ours. What are the horse and the ox, the largest of its animals, compared with our elephants, our rhinoceroses, our sea-horses, and our camels? What are its lizards, either in size or intrepidity, compared with our crocodiles? Its wolves, its bears, the most dreadful of its wild beasts, when beside our lions or tygers? Its eagle, its vultures, and cranes, if compared with our ostriches, appear only like hens.

As to the enormous size and prodigious multiplication of the insects and other little noxious animals. "The surface of the earth (says M. de Pau), infected by putrefaction, was over-run with lizards, serpents, reptiles, and insects, monstrous for size, and the activity of their poison, which they drew from the copious juices of this uncultivated soil, that was corrupt and abandoned to itself, where the nutritive juices became sharp, like the milk in the breast of animals which do not exercise the virtue of propagation. Caterpillars, crabs, butterflies, beetles, spiders, frogs, and toads, were for the most part of an enormous corpulence in their species, and multiplied beyond what can be imagined. Panama is infested with serpents, Carthagena with clouds of enormous bats, Porto Bello with toads, Surinam with kakerlacas or cucarcoas, Guadaloupe and the other colonies of the islands with beetles, Quito with niguas or chegoes, and Lima with lice and bugs. The antient kings of Mexico, and the emperors of Peru, found no other means of ridding their subjects of those insects which fed upon them, than

the imposition of an annual tribute of a certain quantity of lice. Ferdinand Cortes found bags full of them in the palace of Montezuma." But this argument, exaggerated as it is, proves nothing against the climate of America in general, much less against that of Mexico. There being some lands in America, in which, on account of their heat, humidity, or want of inhabitants, large insects are found, and excessively multiplied, will prove at most, that in some places the surface of the earth is infected, as he says, with putrefaction; but not that the soil of Mexico, or that of all America, is stinking, uncultivated, vitiated, and abandoned to itself. If such a deduction were just, M. de Pau might also say, that the soil of the old continent is barren and stinks; as in many countries of it there are prodigious multitudes of monstrous insects, noxious reptiles, and vile animals; as in the Philippine isles, in many of those of the Indian Archipelago, in several countries of the south of Asia, in many of Africa, and even in some of Europe. The Philippine isles are infested with enormous ants and monstrous butterflies, Japan with scorpions, south of Asia and Africa with serpents, Egypt with asps, Guinea and Ethiopia with armies of ants, Holland with field rats, Ukrania with toads, as M. de Pau himself affirms. In Italy, the Campagna di Roma (although peopled for so many ages,) with vipers; Calabria with tarantulas; the shores of the Adriatic sea with clouds of gnats; and even in France, the population of which is so great and so antient, whose lands are so well cultivated, and whose climate is so celebrated by the French, there appeared a few years ago, according to M. Buffon, a new species of field mice, larger than the common kind, called by him surmutots, which have multiplied exceedingly, to the great damage of the fields. M. Bazin, in his Compendium of the History of Insects, numbers seventy-seven species of bugs, which are all found in Paris and its neighbourhood. That large capital, as Mr. Bomare says, swarms with those disgustful insects. It is true that there are places in America, where the multitudes of insects and filthy vermin make life irksome; but we do not know that they have arrived to such excess of multiplication, as to depopulate any place: at least there cannot be so many examples produced of this cause of depopulation in the new as in the old continent, which are attested by Theophrastus, Varro, Pliny, and other authors. The frogs depopulated one place in Gaul, and the locusts another in Africa. One of the Cyclades was depopulated by mice; Amicla, near to Taracina, by serpents; another place, near to Ethiopia, by scorpions and poisonous ants; and another by scolopendras; and not so distant from our own times, the Mauritius was going to be abandoned on account of the extraordinary multiplication of rats, as we can remember to have read in a French author

With respect to the size of the insects, reptiles, and such animals, M. de Pau makes use of the testimony of Mr. Dumont, who, in his memoirs on Louisiana, says that the frogs are so large there, that they weigh thirty-seven French pounds, and their horrid croaking imitates the bellowing of cows. But M. de Pau himself says, (in his answer to Don Pernetty, cap. 17.) that all those who have written about Louisiana from Hempin, Le Clerc, and Cav. Tonti, to Dumont, have contradicted each other, sometimes on one, and sometimes on another subject. In fact, neither in the old or the new continent are there frogs of 37 pounds in weight; but there are in Asia and Africa, serpents, butter-

flies, ants, and other animals of such monstrous size, that they exceed all those which have been discovered in the new world. We know very well, that some American historian says, that a certain gigantic species of serpents is to be found in the wood, which attract men with their breath, and swallow them up: but we know also, that several historians, both antient and modern, report the same thing of the serpents of Asia, and even something more. Magasthenes, cited by Pliny, said, that there were serpents found in Asia, so large, that they swallowed entire stags and bulls. Metrodorus, cited by the same author, affirms, that in Asia there were serpents, which, by their breath, attracted birds, however high they were, or quick their flight. Among the moderns, Gemelli, in vol. v. of his Tour of the World, where he treats of the animals of the Philippine isles, speaks thus: "There are serpents in these islands of immoderate size; there is one called Ibitin, very long, which, suspending itself by the tail from the trunk of a tree, waits till stags, bears, and also men pass by, in order to attract them with its breath, and devour them at once entirely;" from whence it is evident, that this very antient fable has been common to both continents.

Further, it may be asked, in what country of America could M. de Pau find ants to equal those of the Philippine islands, called sulum, respecting which Hernandes affirms, that they were six fingers broad in length, and one in breadth? Who has ever seen in America butterflies so large as those of Bourbon, Ternate, the Philippine isles, and all the Indian Archipelago? The largest bat in America (native to hot, shady countries,) which is that called by Buffon vampiro, is, according to him, of the size of a pigeon. La rougette, one of the species of Asia, is as large as a raven; and the rousette, another species of Asia, is as big as a large hen. Its wings, when extended, measure from tip to tip three Parisian feet; and according to Gemelli, who measured it in the Philippine isles, six palms. M. Buffon acknowledges the excess in size of the Asiatic bat over the American species, but denies it as to number. Gemelli says, that those of the island of Luzon were so numerous that they darkened the air, and that the noise which they made with their teeth, in eating the fruits of the woods, was heard at the distance of two miles.

M. de Pau says, in talking of serpents, "It cannot be affirmed that the new world has shewn any serpents larger than those which Mr. Adanson saw in the deserts of Africa." The greatest serpent found in Mexico, after a diligent search, by Hernandes, was 18 feet long: but this is not to be compared with that of the Moluccas, which Bomare says is 33 feet in length; nor with the anocanjada of Ceylon, which the same author says is more than 33 feet long; nor with others of Asia and Africa, mentioned by the same author. Lastly, the argument drawn from the multitude and size of the American insects is full as weighty as the argument drawn from the smallness and scarcity of quadrupeds, and both detect the same ignorances, or rather the same voluntary and studied forgetfulness, of the things of the old continent.

With respect to what M. de Pau has said of the tribute of lice in Mexico, in that, as well as many other things, he discovers his ridiculous credulity. It is true that Cortes found bags of lice in the magazines of the palace of king Axajacatl. It is also true that Montezuma imposed such a tribute, not on all his subjects, however, but only on those

who were beggars; not on account of the extraordinary multitude of those insects, as M. de Pau affirms, but because Montezuma, who could not suffer idleness in his subjects, resolved that that miserable set of people, who could not labour, should at least be occupied in lousing themselves. This was the true reason of such an extravagant tribute, as Torquemada, Betancourt, and other historians relate; and nobody ever before thought of that which M. de Pau affirms, merely because it suited his preposterous system. Those disgusting insects possibly abound as much in the hair and clothes of American beggars, as of any poor and uncleanly low people in the world; but there is not a doubt, that if any sovereign of Europe was to exact such a tribute from the poor in his dominions, not only bags, but great vessels might be filled with them.

At the time America was discovered, it was found inhabited by a race of men no less different from those in the other parts of the world, than the climate and natural productions of the continent are different from those of Europe, Asia, or Africa. One great peculiarity in the native Americans is their colour, and the identity of it throughout the whole extent of the continent. In Europe and Asia, the people who inhabit the northern countries are of a fairer complexion than those who dwell more to the southward. In the torrid zone, both in Africa and Asia, the natives are entirely black, or the next thing to it. This, however, must be understood with some limitation. The people of Lapland, who inhabit the most northerly part of Europe, are by no means so fair as the inhabitants of Britain; nor are the Tartars so fair as the inhabitants of Europe who lie under the same parallel of latitude. Nevertheless, a Laplander is fair, when compared with an Abyssinian, and a Tartar, if compared with a native of the Molucca islands. In America, this distinction of colour was not to be found. In the torrid zone there were no negroes, and in the temperate and frigid zones there were no white people. All of them were of a kind of red copper colour, which Mr. Forster observed, in the Pesserays of Terra del Fuego, to have something of a gloss resembling that of metal. It doth not appear, however that this matter hath ever been inquired into with sufficient accuracy. The inhabitants of the inland parts of South America, where the continent is widest, and consequently the influence of the sun the most powerful, have never been compared with those of Canada, or more northerly parts, at least by any person of credit. Yet this ought to have been done, and that in many instances too, before it could be asserted so positively as most authors do, that there is not the least difference of complexion among the natives of America. Indeed, so many systems have been formed concerning them, that it is very difficult to obtain a true knowledge of the most simple facts. If we may believe the Abbé Raynal, the Californians are swarthier than the Mexicans; and so positive is he in this opinion, that he gives a reason for it. "This difference of colour," says he, "proves, that the civilized life of society subverts, or totally changes the order and laws of nature, since we find, under the temperate zone, a savage people that are blacker than the civilized nations of the torrid zone." On the other hand, Dr. Robertson classes all the inhabitants of Spanish America together with regard to colour, whether they are civilized or uncivilized; and when he speaks of California, takes no notice of any peculiarity in their colour more than others. The general appearance of

the indigenous Americans in various districts is thus described by the Chevalier Pinto: "They are all of a copper colour, with some diversity of shade, not in proportion to their distance from the equator, but according to the degree of elevation of the territory in which they reside. Those who live in a high country are fairer than those in the marshy lowlands on the coast. Their face is round, farther removed, perhaps, than that of any people from an oval shape. Their forehead is small; the extremity of their ears far from the face; their lips thick; their nose flat; their eyes black, or of a chesnut colour, small, but capable of discerning objects at a great distance. Their hair is always thick and sleek, and without any tendency to curl. At the first aspect, a South American appears to be mild and innocent: but, on a more attentive view, one discovers in his countenance something wild, distrustful, and sullen."

The following account of the native Americans is given by Don Antonio Ulloa, in a work entitled Memoirs Philosophiques, Historiques, et Physiques, concernans la decouverte de l'Amerique, lately published.

"The American Indians are naturally of a colour bordering upon red. Their frequent exposure to the sun and wind changes it to their ordinary dusky hue. The temperature of the air appears to have little or no influence in this respect. There is no perceptible difference in complexion between the inhabitants of the high and those of the low parts of Peru, yet the climates are of an extreme difference. Nay, the Indians who live as far as 40 degrees and upwards south or north of the equator, are not to be distinguished, in point of colour, from those immediately under it."

"There is also a general conformation of features and person, which, more or less, characterises them all. Their chief distinctions in these respects are a small forehead, partly covered with hair to the eyebrows, little eyes, the nose thin, pointed, and bent towards the upper lip, a broad face, large ears, black, thick, and lank hair; the legs well formed, the feet small, the body thick and muscular; little or no beard on the face, and that little never extending beyond a small part of the chin and upper lip. It may easily be supposed that this general description cannot apply, in all its parts, to every individual; but all of them partake so much of it, that they may easily be distinguished, even from the mulattoes, who come nearest to them in point of colour."

"The resemblance among all the American tribes is not less remarkable in respect to their genius, character, manners, and particular customs. The most distant tribes are, in these respects, as similar as though they formed but one nation."

"All the Indian nations have a particular pleasure in painting their bodies of a red colour, with a certain species of earth. The mine of Guancavelica was formerly of no other use than to supply them with this material for dying their bodies; and the cinnabar extracted from it was applied entirely to this purpose. The tribes in Louisiana and Canada have the same passion; hence minium is the commodity most in demand there."

"It may seem singular that these nations, whose natural colour is red, should affect the same colour as an artificial ornament. But it may be observed, that they do nothing in this respect but what corresponds to the practice of Europeans, who also study to

heighten and display to advantage the natural red and white of their complexions. The Indians of Peru have now indeed abandoned the custom of painting their bodies: but it was common among them before they were conquered by the Spaniards; and it still remains the custom of all those tribes who have preserved their liberty. The northern nations of America, besides the red colour, which is predominant, employ also black, white, blue, and green, in painting their bodies.

The adjustment of these colours is a matter of as great consideration with the Indians of Louisiana and the vast regions extending to the north, as the ornaments of dress among the most polished nations. The business itself they call Mactacher, and they do not fail to apply all their talents and assiduity to accomplish it in the most finished manner. No lady, of the greatest fashion, ever consulted her mirror with more anxiety than the Indians do while painting their bodies. The colours are applied with the utmost accuracy and address. Upon the eyelids, precisely at the root of the eye-lashes, they draw two lines, as fine as the smallest thread; the same upon the lips, the openings of the nostrils, the eyebrows, and the ears; of which last they even follow all the inflexions and insinuosities. As to the rest of the face, they distribute various figures, in all which the red predominates, and the other colours are assorted, so as to throw it out to the best advantage. The neck also receives its proper ornaments; a thick coat of vermillion commonly distinguishes the cheeks. Five or six hours are requisite for accomplishing all this with the nicety which they affect. As their first attempts do not always succeed to their wish, they efface them, and begin anew upon a better plan. No coquette is more fastidious in her choice of ornament, none more vain when the important adjustment is finished. Their delight and self-satisfaction are then so great, that the mirror is hardly ever laid down. An Indian, mactached to his mind is the vainest of all the human species. The other parts of their body are left in their natural state, and excepting what is called a cachecul, they go entirely naked.

Such of them as have made themselves eminent for their bravery, or other qualifications, are distinguished by figures painted on their bodies. They introduce the colours by making punctures on their skin, and the extent of surface which this ornament covers is proportioned to the exploits they have performed. Some paint only their arms; others both their arms and legs; others again their thighs; while those who have attained the summit of warlike renown, have their bodies painted from the waist upwards. This is the heraldry of the Indians: the devices of which are probably more exactly adjusted to the merits of the persons who bear them, than those of more civilized countries.

Besides these ornaments, the warriors also carry plumes of feathers on their heads, their arms, and ancles. These likewise are tokens of valour, and none but such as have been thus distinguished may wear them.

The propensity to indolence is equal among all the tribes of Indians, civilized or savage. The only employment of those who have preserved their independence is hunting and fishing. In some districts the women exercise a little agriculture in raising Indian corn and pompions, of which they form a species of aliment by bruising them together; they also prepare the ordinary beverage in use among them, taking care, at the same time, of the children, of whom the fathers take no charge.

The female Indians of all the conquered regions of South America practise what is called the ureu (a word which among them signifies elevation). It consists in throwing forward the hair from the crown of the head upon the brow, and cutting it round from the ears to above the eye; so that the forehead and eyebrows are entirely covered. The same custom takes place in the northern countries. The female inhabitants of both regions tie the rest of their hair behind, so exactly on the same fashion, that it might be supposed the effect of mutual imitation. This, however, being impossible, from the vast distance that separates them, is thought to countenance the supposition of the whole of America being originally planted with one race of people.

This custom does not take place among the males. Those of the higher parts of Peru wear long and flowing hair, which they reckon a great ornament. In the lower parts of the same country they cut it short, on account of the heat of the climate: a circumstance in which they imitate the Spaniards. The inhabitants of Louisiana pluck out the hair by the root, from the crown of the head forwards, in order to obtain a large forehead, otherwise denied them by nature. The rest of their hair they cut as short as possible, to prevent their enemies from seizing them by it in battle, and also to prevent them from easily getting their scalp, should they fall into their hands as prisoners.

The whole race of American Indians is distinguished by thickness of skin and hardness of fibres; circumstances which probably contribute to that insensibility to bodily pain for which they are remarkable. An instance of this insensibility occurred in an Indian, who was under the necessity of submitting to be cut for the stone. This operation, in ordinary cases, seldom lasts above four or five minutes. Unfavourable circumstances in his case prolonged it to the uncommon period of 27 minutes. Yet all this time the patient gave no tokens of the extreme pain commonly attending this operation: he complained only as a person does who feels some slight uneasiness. At last the stone was extracted. Two days after he expressed a desire for food, and on the eight day from the operation he quitted his bed, free from pain, although the wound was not yet thoroughly closed.

The same want of sensibility is observed in cases of fractures, wounds, and other accidents of a similar nature. In all these cases their cure is easily effected, and they seem to suffer less present pain than any other race of men. The skulls that have been taken up in their antient burying grounds are of a greater thickness than that one is commonly found, being from six to seven lines from the outer to the inner superficies. The same is remarked as to the thickness of their skins.

It is natural to infer from hence, that their comparative insensibility to pain is owing to a coarser and stronger organization than that of other nations. The ease with which they endure the severities of climate is another proof of this. The inhabitants of the higher parts of Peru live amidst perpetual frost and snow. Although their cloathing is very slight, they support this inclement temperature without the least inconvenience. Habit, it is to be confessed, may contribute a good deal to this, but much also is to be ascribed to the compact texture of their skins, which defend them from the impression of cold through their pores.

" The northern Indians resemble them in this respect. The utmost rigour of the winter season does not prevent them from following the chace almost naked. It is true, they wear a kind of woollen cloak, or sometimes the skin of a wild beast, upon their shoulders; but besides that it covers only a small part of their body, it would appear that they use it rather for ornament than warmth. In fact, they wear it indiscriminately, in the severities of winter and in the sultriest heat of summer, when neither Europeans nor negroes can suffer any but the slightest clothing. They even frequently throw aside this cloak when they go a-hunting, that it may not embarrass them in traversing their forests, where they say the thorns and undergrowth would take hold of it; while, on the contrary, they slide smoothly over the surface of their naked bodies. At all times they go with their heads uncovered without suffering the slighest inconvenience, either from the cold, or from those coups de soleil, which, in Louisiana, are so often fatal to the inhabitants of other climates.

The character of the Indians is altogether founded upon their circumstances and way of life. A people who are constantly employed in procuring the means of a precarious subsistence, who live by hunting the wild animals, and who are generally engaged in war with their neighbours, cannot be supposed to enjoy much gaiety of temper, or a high flow of spirits. The Indians, therefore, are in general grave, even to sadness; they have nothing of that giddy vivacity peculiar to some nations of Europe, and they despise it. Their behaviour to those about them is regular, modest, and respectful. Ignorant of the arts of amusement, of which that of saying trifles agreeably is one of the most considerable, they never speak but when they have something of importance to observe; and all their actions, words, and even looks, are attended with some meaning. This is extremely natural to men who are almost continually engaged in pursuits, which to them are of the highest importance. Their subsistence depends entirely on what they procure with their hands; and their lives, their honour, and every thing dear to them, may be lost by the smallest inattention to the designs of their enemies. As they have no particular object to attach them to one place rather than another, they fly wherever they expect to find the necessaries of life in the greatest abundance. Cities, which are the effects of agriculture and arts, they have none. The different tribes or nations are, for the same reasons, extremely small, when compared with civilized societies, in which industry, arts, agriculture, and commerce, have united a vast number of individuals, whom a complicated luxury renders useful to one another. These small tribes live at an immense distance; they are separated by a desert frontier, and hid in the bosom of impenetrable and almost boundless forests.

There is established in each society a certain species of government, which, over the whole continent of America, prevails with exceeding little variation; because, over the whole continent, the manners and way of life are nearly similar and uniform. Without arts, riches, or luxury, the great instruments of subjection in polished societies, an American has no method by which he can render himself considerable among his companions, but by superiority in personal qualities of body or mind. But as nature has not been very lavish in her personal distinctions, where all enjoy the same education, all are pretty much equal, and will desire to remain so. Liberty, therefore, is the

prevailing passion of the Americans; and their government, under the influence of this sentiment, is better secured than by the wisest political regulations. They are very far, however, from despising all sort of authority: they are attentive to the voice of wisdom, which experience has conferred on the aged, and they inlist under the banners of the chief, in whose valour and military address they have learned to repose their confidence.

In every society, therefore, there is to be considered the power of the chief and the elders; and according as the government inclines more to the one or to the other, it may be regarded as monarchical, or as a species of aristocracy. Among those tribes which are most engaged in war, the power of the chief is naturally predominant; because the idea of having a military leader was the first source of his superiority, and the continual exigencies of the state requiring such a leader, will continue to support, and even to enhance it. His power, however, is rather persuasive than coercive; he is reverenced as a father, rather than feared as a monarch. He has no guards, no prisons, no officers of justice, and one act of ill-judged violence would pull him from the throne.

The elders, in the other form of government, which may be considered as an aristocracy, have no more power. In some tribes, indeed, there are a kind of hereditary nobility, whose influence, being constantly augmented by time, is more considerable. But the source of power, which depends chiefly on the imagination, by which we annex to the merit of our cotemporaries that of their forefathers, is too refined to be very common among the natives of America. In most countries, therefore, age alone is sufficient for acquiring respect, influence, and authority. It is age which teaches experience, and experience is the only source of knowledge among a barbarous people. Among those persons business is conducted with the utmost simplicity, and which may recal to those who are acquainted with antiquity, a picture of the most early ages. The heads of families meet together in a house or cabin appointed for the purpose. Here the business is discussed; and here those of the nation, distinguished for their eloquence or wisdom, have an opportunity of displaying those talents. Their orators, like those of Homer, express themselves in bold, figurative style, stronger than refined, or rather softened nations, can well bear, and with gestures equally violent, but often extremely natural and expressive. When the business is over, and they happen to be well provided with food, they appoint a feast on the occasion, of which almost the whole nation partakes. The feast is accompanied with a song, in which the real or fabulous exploits of their forefathers are celebrated. They have dances too, though, like those of the Greeks and Romans, chiefly of the military kind; and their music and dancing accompany every feast.

To assist their memory, they have belts of small shells, or beads, of different colours, each representing a particular object, which is marked by their colour and arrangement. At the conclusion of every subject on which they discourse, when they treat with a foreign state, they deliver one of those belts; for if this ceremony should be omitted, all that they have said passes for nothing. These belts are carefully deposited in each town, as the public records of the nation; and to them they occasionally have recourse, when

any public contest happens with a neighbouring tribe. Of late, as the materials of which those belts are made have become scarce, they often give some skin in the place of the wampum, (the name of the beads,) and receive in return presents of a more valuable kind from our commissioners; for they never consider a treaty as of any weight, unless every article in it be ratified by such a gratification.

It often happens, that those of different tribes or nations, scattered as they are at an immense distance from one another, meet in their excursions after prey. If there subsists no animosity between them, which seldom is the case, they behave in the most friendly and courteous manner; but if they happen to be in state of war, or if there has been no previous intercourse between them, all who are not friends are deemed enemies, and they fight with the most savage fury.

War, if we except hunting, is the only employment of the men; as to every other concern, and even the little agriculture they enjoy, it is left to the women. Their most common motive for entering into war, when it does not arise from an accidental rencounter or interference, is either to revenge themselves for the death of some lost friends, or to acquire prisoners, who may assist them in their hunting, and whom they adopt into their society. These wars are either undertaken by some private adventurers, or at the instance of the whole community. In the latter case, all the young men who are disposed to go out to battle (for no one is compelled contrary to his inclination,) give a bit of wood to the chief, as a token of their design to accompany him; for every thing among these people is transacted with a great deal of ceremony and many forms. The chief who is to conduct them fasts several days, during which he converses with no one, and is particularly careful to observe his dreams; which the presumption natural to savages generally renders as favourable as he could desire. A variety of other superstitions and ceremonies are observed. One of the most hideous is setting the war-kettles on the fire, as an emblem that they are going out to devour their enemies; which, among some nations, must formerly have been the case, since they still continue to express it in clear terms, and use an emblem significant of the antient usage. Then they dispatch a porcelain, or large shell, to their allies, inviting them to come along, and drink the blood of their enemies. They think that those in their alliance must not only adopt their enmities, but have their resentment wound up to the same pitch with themselves. And indeed no people carry their friendship or their resentments so far as they do; and this is what should be expected from their peculiar circumstances: that principle in human nature which is the spring of the social affections, acts with so much the greater force the more it is restrained. The Americans who live in small societies, who see few objects and few persons, become wonderfully attached to those objects and persons, and cannot be deprived of them without feeling themselves miserable.

Their ideas are too confined to enable them to entertain just sentiments of humanity or universal benevolence. But this very circumstance, while it makes them cruel and savage to an incredible degree, towards those with whom they are at war, adds a new force to their particular friendships, and to the common tie which unites the members of the same tribe, or of those different tribes which are in alliance with one another. Without attend-

ing to this reflection, some facts we are going to relate would excite our wonder, without informing our reason, and we should be bewildered in a number of particulars, seemingly opposite to one another, without being sensible of the general cause from which they proceed.

Having finished all the ceremonies previous to the war, and the day appointed for the setting out on their expedition being arrived, they take leave of their friends, and exchange their clothes, or whatever moveables they have, in token of mutual friendship; after which they proceed from the town, their wives and female relations walking before, and attending them to some distance. The warriors march all dressed in their finest apparel and most showy ornaments, without any order. The chief walks slowly before them, singing the war song, while the rest observe the most profound silence. When they come up to their women, they deliver to them all their finery, and putting on their worst clothes, proceed on their expedition.

Every nation has its peculiar ensign or standard, which is generally some beast, bird, or fish. Those among the five nations are the bear, otter, wolf, tortoise, and eagle; and by these names the tribes are usually distinguished. They have the figures of those animals pricked and painted on several parts of their bodies; and when they march through the woods, they commonly, at every encampment, cut the representation of their ensign on trees, especially after a successful campaign: marking, at the same time, the number of scalps or prisoners they have taken.

Their military dress is extremely singular. They cut off or pull out all their hair, except a spot, about the breadth of two English crown-pieces, near the top of their heads, and entirely destroy their eye-brows. The lock left upon their heads is divided into several parcels, each of which is stiffened and adorned with wampum, beads and feathers of various kinds, the whole being twisted into a form much resembling the modern pompoon. Their heads are painted red down to the eye-brows, and sprinkled over with white down. The gristles of their ears are split almost quite round, and distended with wires or splinters, so as to meet and tie together on the nape of the neck. These are also hung with ornaments, and generally bear the representation of some bird or beast. Their noses are likewise bored, and hung with trinkets and beads, and their faces painted with various colours, so as to make an awful appearance. Their breasts are adorned with a gorget or medal, of brass, copper, or some other metal; and that dreadful weapon, the scalping-knife, hangs by a string from their neck.

The great qualities in an Indian war are vigilance and attention, to give and to avoid surprise; and indeed in these they are superior to all nations in the world. Accustomed to continual wandering in the forests, having their perceptions sharpened by keen necessity, and living in every respect according to nature, their external senses have a degree of acuteness which at first view appears incredible. They can trace out their enemies at an immense distance by the smoke of their fires, which they smell, and by the tracks of their feet upon the ground, imperceptible to an European eye, but which they can count and distinguish with the utmost facility. They can even distinguish the different nations with whom they are acquainted, and can determine the precise time when

they passed, when an European could not, with all his glasses, distinguish footsteps at all. These circumstances, however, are of small importance, because their enemies are no less acquainted with them. When they go out, therefore, they take care to avoid making use of any thing, by which they might run the danger of a discovery. They light no fire to warm themselves, or to prepare their victuals; they lie close to the ground all the day, and travel only in the night; and marching along in files, he that closes the rear diligently covers with leaves the tracts of his own feet, and of theirs who preceded him. When they halt to refresh themselves, scouts are sent out to reconnoitre the country, and beat up every place where they suspect an enemy to lie concealed. In this manner they enter unawares the villages of their foes; and while the flower of the nation are engaged in hunting, massacre all the children, women, and helpless old men, or make prisoners of as many as they can manage, or have strength enough to be useful to their nation. But when the enemy is apprised of their design, and coming on in arms against them, they throw themselves flat on the grouud, among the withered herbs and leaves, which their faces are painted to resemble. Then they allow a part to pass unmolested, when all at once, with a tremendous shout, rising up from their ambush, they pour a storm of musket-bullets on their foes. The party attacked returns the same cry. Every one shelters himself with a tree, and returns the fire of the adverse party, as soon as they raise themselves from the ground to give a second fire.

Thus does the battle continue, until the one party is so much weakened as to be incapable of further resistance. But if the force on each side continues nearly equal, the fierce spirits of the savages, inflamed by the loss of their friends, can no longer be restrained. They abandon their distant war, they rush upon one another with clubs and hatchets in their hands, magnifying their own courage, and insulting their enemies with the bitterest reproaches. A cruel combat ensues, death appears in a thousand hideous forms, which would congeal the blood of civilized nations to behold, but which rouse the fury of savages. They trample, they insult over the dead bodies, tearing the scalp from the head, wallowing in their blood, like wild beasts, and sometimes devouring their flesh. The flame rages on till it meets with no resistance; then the prisoners are secured, those unhappy men, whose fate is a thousand times mose dreadful than theirs who have died in the field. The conquerors set up a hideous howling to lament the friends they have lost. They approach in a melancholy and severe gloom to their own village; a messenger is sent to announce their arrival, and the women, with frightful shrieks, come out to mourn their dead brothers or their husbands. When they are arrived, the chief relates, in a low voice, to the elders, a circumstantial account of every particular of the expedition. The orator proclaims aloud this account to the people, and as he mentions the names of those who have fallen, the shrieks of the women are redoubled. The men too join in these cries, according as each is most connected with the deceased, by blood or friendship. The last ceremony is the proclamation of the victory; each individual then forgets his private misfortunes, and joins in the triumph of the nation; all tears are wiped from their eyes, and by an unaccountable transition, they pass in a moment from the bitterness of sorrow to an extravagance of joy. But

the treatment of the prisoners, whose fate all this time remains undecided, is what chiefly characterises the savages.

We have already mentioned the strength of their affections or resentments. United as they are in small societies, connected within themselves by the firmest ties, their friendly affections, which glow with the most intense warmth within the walls of their own village, seldom extend beyond them. They feel nothing for the enemies of their nation; and their resentment is easily extended from the individual who has injured them, to all others of the same tribe. The prisoners, also, have themselves the same feelings, and know the intentions of their conquerors, and are prepared for them. The person who has taken the captive attends him to the cottage, where, according to the distribution made by the elders, he is to be delivered to supply the loss of a citizen. If those who receive him have their family weakened by war or other accidents they adopt the captive into the family, of which he becomes a member. But if they have no occasion for him, or their resentment for the loss of their friends be too high to endure the sight of any connected with those who were concerned in it, they sentence him to death.

All those who have met with the same severe sentence being collected, the whole nation is assembled at the execution, as for some great solemnity. A scaffold is erected, and the prisoners are tied to the stake, where they commence their death-song, and prepare for the ensuing scene of cruelty with the most undaunted courage. Their enemies, on the other side, are determined to put it to the proof, by the most refined and exquisite tortures. They begin at the extremity of his body, and gradually approach the more vital parts. One plucks out his nails by the roots, one by one; another takes a finger into his mouth, and tears off the flesh with his teeth; a third thrusts the finger, mangled as it is, into the bowl of a pipe, made red hot, which he smokes like tobacco; then they pound his toes and fingers to pieces between two stones; they cut circles about his joints, and gashes in the fleshy parts of his limbs, which they sear with red-hot irons, cutting, burning, and pinching them alternately; they pull off this flesh, thus mangled and roasted, bit by bit, devouring it with greediness, and smearing their faces with the blood, in an enthusiasm of horror and fury. When they have thus torn off the flesh, they twist the bare nerves and tendons about an iron, tearing and snapping them, whilst others are employed in pulling and extending their limbs in every way that can increase the torment. This continues often five or six hours; and sometimes, such is the strength of the savage, days together. Then they frequently unbind him, to give a breathing to their fury, and to think what new torments they shall inflict, and to refresh the strength of the sufferer, who, wearied out with such a variety of unheard of torments, often falls into so profound a sleep, that they are obliged to apply the fire to awaken him, and renew his sufferings. He is again fastened to the stake, and again they renew their cruelty; they stick him all over with small matches of wood, that easily take fire, but burn slowly; they continually run sharp reeds into every part of his body; they drag out his teeth with pincers, and thrust out his eyes; and lastly, after having burned his flesh from the bones with slow fires; after having so mangled the body that it is all but one wound; after having mutilated his face in such a man-

ner as to carry nothing human in it; after having peeled the skin from the head, and poured a heap of red-hot coals or boiling water on the naked skull, they once more unbind the wretch; who, blind, and staggering with pain and weakness, assaulted and pelted on every side with clubs and stones, now up, now down, falling into their fires at every step, runs hither and thither, until one of the chiefs, whether out of compassion, or weary of cruelty, puts an end to his life with a club or dagger. The body is then put into a kettle, and this barbarous employment is succeeded by a feast as barbarous.

The women, forgetting the human as well as the female nature, and transformed into something worse than furies, even outdo the men in this scene of horror; while the principal persons of the country sit round the stake, smoaking, and looking on without the least emotion. What is most extraordinary, the sufferer himeself, in the little intervals of his torments, smokes too, appears unconcerned, and converses with his torturers about indifferent matters. Indeed, during the whole time of his execution, there seems a contest which shall exceed, they in inflicting the most horrid pains, or he in enduring them with a firmness and constancy almost above human; not a groan, not a sigh, not a distortion of countenance escapes him; he possesses his mind entirely in the midst of his torments; he recounts his own exploits; he informs them what cruelties he has inflicted upon their countrymen, and threatens them with the revenge that will attend his death; and, though his reproaches exasperate them to a perfect madness of rage and fury, he continues his insults, even of their ignorance of the art of tormenting, pointing out himself more exquisite methods, and more sensible parts of the body to be afflicted The women have this part of courage as well as the men; and it is as rare for an Indian to behave otherwise, as it would be for an European to suffer as an Indian. Such is the wonderful power of an early institution, and a ferocious thirst of glory. "I am brave and intrepid," exclaims the savage in the face of his tormentors, "I fear not death, nor any kind of tortures; those who fear them are cowards; they are less than women; life is nothing to those who have courage: may my enemies be confounded with despair and rage! Oh! that I could devour them, and drink their blood to the last drop!"

But neither the intrepidity on one side, nor the inflexibility on the other, are among themselves matters of astonishment: for vengeance and fortitude, in the midst of torment, are duties which they consider as sacred; they are the effects of their earliest education, and depend upon principles instilled into them from their infancy. On all other occasions they are humane and compassionate. Nothing can exceed the warmth of their affections towards their friends, who consist of all those who live in the same village, or are in alliance with it. Among these all things are common; and this, though it may in part arise from their not possessing very distinct notions of separate property, is chiefly to be attributed to the strength of their attachment; because in every thing else, with their lives as well as their fortunes, they are ready to serve their friends. Their houses, their provisions, even their young women, are not enough to oblige a guest. Has any one of these succeeded ill in his hunting? has his harvest failed? or is his house burned? He feels no other effect of his misfortunes, than tha

it gives him an opportunity to experience the benevolence and regard of his fellow-citizens.

On the other hand, to the enemies of his country, or to those who have privately offended him, the American is implacable. He conceals his sentiments, he appears reconciled, until, by some treachery or surprise, he has an opportunity of executing an horrible revenge. No length of time is sufficient to allay his resentments; no distance of place great enough to protect the object: he crosses the steepest mountains; he pierces the most impracticable forests, and traverses the most hideous bogs and deserts for several hundreds of miles; bearing the inclemency of the seasons, the fatigue of the expedition, the extremes of hunger and thirst, with patience and cheerfulness, in hopes of surprising his enemy, on whom he exercises the most shocking barbarities, even to the eating of his flesh. To such extremes do the Indians push their friendship or their enmity; and such indeed, in general, is the character of all strong and uncultivated minds.

But what we have said respecting the Indians, would be a faint picture, did we omit observing the force of their friendship, which principally appears by the treatment of their dead. When any one of the society is cut off, he is lamented by the whole: on this occasion a thousand ceremonies are practised, denoting the most lively sorrow. No business is transacted, however pressing, till all the pious ceremonies due to the dead are performed. Then the women lament the loss with hideous howlings, intermixed with songs, which celebrate the great actions of the deceased and his ancestors. The men mourn in a less extravagant manner. The whole village is present at the interment, and the corpse is habited in their most sumptuous ornaments. Close to the body of the defunct are placed his bow and arrows, with whatever he valued most in his life, and a great quantity of provision for his subsistence on the journey which he is supposed to take. This solemnity, like every other, is attended with feasting. The funeral being ended, the relations of the deceased confine themselves to their huts for a considerable time to indulge their grief. After an interval of some weeks, they visit the grave, repeat their sorrow, new clothe the remains of the body, and act over again all the solemnities of the funeral.

Among the various tokens of their regard to their deceased friends, the most remarkable is what they call the feast of the dead, or the feast of souls. The day for this ceremony is appointed in the council of their chiefs, who give orders for every thing which may enable them to celebrate it with pomp and magnificence, and the neighbouring nations are invited to partake of the entertainment. At this time, all who have died since the preceding feast of the kind are taken out of their graves. Even those who have been interred at the greatest distance from the villages are diligently sought for, and conducted to this rendezvous of the dead, which exhibits a scene of horror beyond the power of description. When the feast is concluded, the bodies are dressed in the finest skins which can be procured, and after being exposed for some time in this pomp, are again committed to the earth with great solemnity, which is succeeded by funeral games.

Their taste for war, which forms the chief ingredient in their character, gives a strong

bias to their religion. Areskoui, or the god of battle, is revered as the great god of the Indians. Him they invoke before they go into the field, and according as his disposition is more or less favourable to them, they conclude they will be more or less successful. Some nations worship the sun and moon; among others there are a number of traditions, relative to the creation of the world and the history of the gods: traditions, which resemble the Grecian fables, but which are still more absurd and inconsistent.

But religion is not the prevailing character of the Indians; and except when they have some immediate occasion for the assistance of their gods, they pay them no sort of worship. Like all rude nations, however, they are strongly addicted to superstition. They believe in the existence of a number of good and bad genii, or spirits, who interfere in the affairs of mortals, and produce all our happiness or misery. It is from the evil genii, in particular, that our diseases proceed; and it is to the good genii we are indebted for a cure. The ministers of the genii are the jugglers, who are also the only physicians among the savages. These jugglers are supposed to be inspired by the good genii, most commonly in their dreams, with the knowledge of future events; they are called in to the assistance of the sick, and are supposed to be informed by the genii whether they will get over the disease, and in what way they must be treated. But those spirits are extremely simple in their system of physic, and in almost every disease direct the juggler to the same remedy. The patient is inclosed in a narrow cabin, in the midst of which is a stone red-hot; on this they throw water, until he is well soaked with the warm vapour and his own sweat. Then they hurry him from the bagnio, and plunge him suddenly into the next river. This coarse method, which costs many their lives, often performs very extraordinary cures. The jugglers have likewise the use of some specifics of wonderful efficacy; and all the savages are dexterous in curing wounds by the application of herbs. But the power of these remedies is always attributed to the magical ceremonies with which they are administered.

Though the women generally bear the laborious part of domestic economy, the greatest respect is paid by the men to the female sex. The women even hold their councils, and have their share in all deliberations which concern the state. Polygamy is practised by some nations, but is not general. In most, they content themselves with one wife; but a divorce is admitted in case of adultery. No nation of the Americans is without a regular marriage, in which there are many ceremonies; the principal of which is, the bride's presenting the bridegroom with a plate of their corn. The women, though before incontinent, are remarkable for chastity after marriage.

Liberty, in its full extent, being the darling passion of the Indians, their education is directed in such manner as to cherish this disposition to the utmost. Hence children are never on any account chastised with blows, and they are seldom even reprimanded. Reason, they say, will guide their children, when they come to the use of it, and before that time their faults cannot be very great: but blows may damp their free and martial spirit, by the habit of a slavish motive to action. When grown up, they experience nothing like command, dependance, or subordination; even strong persuasion is industriously withheld, by those who have influence among them. No man is held in

great esteem, unless he has increased the strength of his country with a captive, or adorned his hut with the scalp of one of his enemies.

Controversies among the Indians are few, and quickly decided. When any criminal matter is so flagrant as to become a national concern, it is brought under the jurisdiction of the great council; but in ordinary cases, the crime is either revenged or compromised by the parties concerned. If a murder be committed, the family which has lost a relation prepare to retaliate on that of the offender. They often kill the murderer; and when this happens, the kindred of the last person slain look upon themselves to be as much injured, and to have the same right to vengeance as the other party.

In general, however, the offender absents himself; the friends send compliments of condolence to those of the person that has been murdered. The head of the family at length appears with a number of presents, the delivery of which he accompanies with a formal speech. The whole ends, as usual, in mutual feasting, songs, and dances. If the murder be committed by one of the same family or cabin, that cabin has the full right of judgment within itself, either to punish the guilty with death, or to pardon him, or to oblige him to give some recompence to the wife or children of the slain. Instances of such a crime, however, very seldom happen; for their attachment to those of the same family is remarkably strong, and is said to produce such friendships as may vie with the most celebrated in fabulous antiquity.

In general the American Indians live to a great age, although it is impossible to know from themselves the exact number of their years. It was asked an Indian, who appeared to be extremely old, what age he was of. "I am above twenty," was the reply. Upon putting the question in a different form, by reminding him of certain circumstances in former times, "My machu," said he, "spoke to me when I was young of the Incas, and he had seen the Incas princes." According to this reply, there must have elapsed, from the date of his machu's (his grandfather's) remembrance to that time, a period of at least 232 years. The man who made this reply appeared to be 120 years of age; for, beside the whiteness of his hair and beard, his body was bent to the ground, without, however, showing any other marks of debility or suffering. This happened 1764. This longevity, attended in general with uninterrupted health, is probably the consequence in part, of their vacancy from all serious thoughts and employment, joined also with the robust texture and conformation of their bodily organs. If the Indians did not destroy one another in their almost perpetual wars, and if their habits of intoxication were not so universal and incurable, they would be, of all the races of men who inhabit the globe, the most likely to prolong, not only the bounds, but the enjoyments of animal life to their utmost duration.

We have now described several important traits which distinguish the inhabitants of the western continent; but it is necessary, before we quit this subject, to observe, that they are very variously represented by their friends and their enemies. The latter deny their personal courage, and assert that there is no instance either of a single Indian facing an individual of any other nation in fair open combat, or of their jointly venturing to try the fate of battle with an equal number of any foes. The former, in answer,

remind us of the indefatigable perseverance and incredible patience in suffering, which are evinced in their Indian warriors. On the one side we are told of their combining perfidy with cruelty, on the other it is alledged that it may be fairly questioned, whether the instances of these, either in respect of their number or their atrocity, be at all comparable to those exhibited in European history, and staining the annals of Christendom; to those, for instance, of the Spaniards themselves, at their first discovery of America; to those indicated by the engines found on board their mighty armada; to those which in cold blood were perpetrated by the Dutch at Amboyna, to the dragoonings of the French; to their religious massacres, or even to the *tender mercies* of the inquisition.

A certain set of theorists, at the head of whom is the Count de Buffon, have asserted not only that the moral qualities of the Americans are depraved, but that their minds are feeble, their bodies diseased, and even the number, size, and fierceness of their animals are diminished, in consequence of the cold and moisture of their climates. The abbé Clavigero, on the contrary, asserts, from an intimate acquaintance with many of their nobles, their artists, and their students in the college of Guadaloupe, that they are capable of all, even the most abstract sciences, and that if equal care were taken of their education, we should see rise among the Americans, philosophers, mathematicians, and divines, who could rival the first in Europe.

That their bodies are by no means enfeebled or diseased, is argued from their agility, their perseverance in sustaining the fatigues of war, and the longevity at which they sometimes arrive. Tables have been constructed which have given a comparative view of the quadrupeds of Europe and America. The result of this view is, that of 26 quadrupeds common to both countries, seven are said to be larger in America, seven of equal size, and 12 not sufficiently examined. The result of the second table, which arranges the animals found in one of the two countries only, is, that there are 18 quadrupeds peculiar to Europe, 74 to America; and that the first of these 74, the tapir, the largest of the animals peculiar to America, weighs more than the whole column of Europeans.

The third table comprehends those quadrupeds only which are domestic in both countries. That some of these, in some parts of America, have become less than their common stock, is doubtless true; and the reason is very obvious. In a thinly peopled country, the spontaneous productions of the forests and waste fields are sufficient to support indifferently the domestic animals of the farmer, with very little aid from him in the severest and scarcest season. He therefore finds it more convenient to receive them from the hand of nature in that indifferent state, than to keep up their size by care and nourishment, which would cost him much labour. It appears, however, from the weights actually known, and stated in the third table, that with equal food and care, the climate of America will preserve the races of domestic animals as large as the European stock from which they are derived.

The reader may probably be now disposed to inquire from what part of the world America has received its inhabitants, and if probable conjecture may be admitted to our assistance, this is not a question of very difficult solution.

The two continents of Asia and America are separated only by a strait of 39 miles in breadth. In this strait are two islands, which must greatly facilitate the migration of the Asiatics into the New World. Besides, it may be added, that these straits are in the summer often filled with ice, and in winter often frozen. In either case, mankind might find an easy passage; in the last, the way was extremely ready for quadrupeds to cross and stock the continent of America.

It is also an opinion entertained by many learned men, that this strait did not formerly exist, but was caused by one of those violent convulsions which succeeded the deluge: and if this disruption of the continents did not take place till after America was peopled, it solves all difficulties in the easiest possible way. It appears, therefore, that a migration of men and animals from the old to the new world was abundantly possible, and that it really was effected, we have pretty evident proof, from the striking similarity of manners between the Tartars of Asia and the Esquimaux of America.

It is believed by many, that the antients had some imperfect notions of a New World; and several antient authors are quoted in confirmation of this opinion.

In a book ascribed to the philosopher Aristotle, we are told that the Carthaginians discovered an island far beyond the pillars of Hercules, large, fertile, and finely watered with navigable rivers, but uninhabited. This island was distant a few days sailing from the continent. Its beauty induced the discoverers to settle there, but the policy of Carthage dislodged the colony, and laid a strict prohibition on all the subjects of the state, not to attempt any future establishment. This account is also confirmed by an historian of no mean credit, who relates that the Tyrians would have settled a colony on the new discovered island, but were opposed by the Carthaginians for state reasons. Seneca and other authors are also quoted in support of this belief. But however this may be, nobody ever believed the existance of this continent so firmly as to go in quest of it; at least there are no accounts well supported, that America received any part of its first inhabitants from Europe prior to the 15th century. The Welch fondly imagine that their country contributed, in 1170, to people the New World, by the adventure of Madoc, son of Owen Gwynedd, who, on the death of his father, sailed there and colonized part of the country. All that is advanced in proof is a quotation from one of the British poets, which proves no more than that he had distinguished himself by sea and land. It is pretended that he made two voyages; that sailing west, he left Ireland so far to the north, that he came to a land unknown, where he saw many strange things; that he returned home, and making a report of the fruitfulness of the new discovered country, prevailed on numbers of the Welch of each sex, to accompany him on a second voyage, from which he never returned. The favourers of this opinion assert, that several Welch words, such as gwrando, "to hearken or listen," the isle of Croeso or "Welcome," Cape Breton, from the name of Britain; gwyndar, or "the white water;" and Pengwin, or "the bird with a white head," are to be found in the American language. But likeness of sound in a few words will not be deemed sufficient to establish the fact; especially if the meaning has been evidently perverted: for example, the whole penguin tribe have unfortunately not only black heads, but are not inhabitants of the northern

hemisphere: The name was also bestowed on them by the Dutch, a pinguedine, from their excessive fatness: but the inventor of this, thinking to do honour to his native country, inconsiderately caught at a word of European origin, and unheard of in the new world. It might be added that the Welch were never a naval people; that the age in which Madoc lived was peculiarly ignorant in navigation; and the most which they could have attempted must have been a mere coasting voyage.

The Norwegians put in for a share of the glory, on grounds rather better than the Welch. By their settlements in Iceland, and in Greenland, they had arrived within so small a distance of the new world, that there is at least a possibility of its having been touched at by a people so versed in maritime affairs and so adventurous as the antient Normans were. The proofs are much more numerous than those produced by the British historians; for the discovery is mentioned in several of the islandic manuscripts. The period was about the year 1002, when it was visited by one Biorn; and the discovery pursued to greater effect by Leif, the son of Eric, the discoverer of Greenland. It does not appear that they reached further than Labrador; on which coast they met with the Esquimaux, on whom they bestowed the name of Skraelingues, or dwarfish people, from their small stature. They were armed with bows and arrows, and had leathern canoes, such as they have at present. All this is probable; nor should the tale of the German, called Turkill, one of the crew, invalidate the account. He was one day missing; but soon returned, leaping, and singing, with all extravagant marks of joy a bonvivant could shew on discovering the inebriating fruit of his country, the grape. Torfaeus even says, that he returned in a state of intoxication. To convince his commander, he brought several bunches, who from that circumstance named that country Vinland.

It is not to be denied, that North America produces the true vine; but it is found in far lower latitudes than our adventurers could reach in the time employed in their voyage, which was comprehended in a very small space. There appears no reason to doubt the discovery; but as the land was never colonized, nor any advantages made of it, it may fairly be conjectured, that they reached no further than the barren country of Labrador. In short, it is from a much later period that we must date the real discovery of America.

Among the foreigners whom the fame of the discoveries made by the Portuguese had allured into their service, was Christopher Colon or Columbus, a subject of the republic of Genoa. Neither the time nor the place of his birth are known with certainty, but he was descended of an honourable family, though reduced to indigence by various misfortunes. His ancestors having betaken themselves for subsistence to a sea-faring life, Columbus discovered in his early youth, the peculiar character and talents, which mark out a man for that profession. His parents, instead of thwarting this original propensity of his mind, seem to have encouraged and confirmed it, by the education which they gave him. After acquiring some knowledge of the latin tongue, the only language in which science was taught at that time, he was instructed in geometry, cosmography, astronomy, and the art of drawing. To these he applied with such ardour and predilection, on account of their connection with navigation, his favourite object, that he advanced with

rapid proficiency in the study of them. Thus qualified, in the year 1481, he went to sea, at the age of 14, and began his career on that element, which conducted him to so much glory.

His early voyages were to those ports of the Mediterranean which his countrymen, the Genoese frequented. This being a sphere too narrow for his active mind, he made an excursion to the northern seas in 1487, and visited the coasts of Iceland, to which the English and other nations had begun to resort, on account of its fishery. As navigators in every direction were now become enterprising, he proceeded beyond that island, the Thule of the antients, and advanced several degrees within the polar circle. Having satisfied his curiosity by a voyage, which tended more to enlarge his knowledge of naval affairs, than to improve his fortune, he entered into the service of a famous sea captain, of his own name and family. This man commanded a small squadron, fitted out at his own expence, and by cruizing sometimes against the Mahometans, sometimes against the Venetians, the rivals of his country in trade, had acquired both wealth and reputation. With him Columbus continued several years, no less distinguished for his courage, than for his experience as a sailor. At length, in an obstinate engagement off the coast of Portugal, with some Venetian caravels, returning richly laden from the Low Countries, the vessel on board which he served took fire, together with one of the enemy's ships, to which it was fast grappled. In this dreadful extremity, his intrepidity and presence of mind did not forsake him. He threw himself into the sea, laid hold of a floating oar, and by the support of it, and his dexterity in swimming, he reached the shore, though above two leagues distant, and saved a life reserved for great undertakings.

As soon as he recovered strength for the journey, he repaired to Lisbon, where many of his countrymen were settled. They soon conceived a favourable opinion of his merit, as well as talents, that they warmly solicited him to remain in that kingdom, where his naval skill and experience could not fail of rendering him conspicuous. To every adventurer, animated either with curiosity to visit new countries, or with ambition to distinguish himself, the Portuguese service was at that time extremely inviting. Columbus listened with a favourable ear to the advice of his friends, and having gained the esteem of a Portuguese lady, whom he married, fixed his residence in Lisbon. This alliance, instead of detaching him from a sea-faring life, contributed to enlarge the sphere of his naval knowledge, and to excite a desire of extending it still farther. His wife was a daughter of Bartholomew Perestrello, one of the captains employed by prince Henry in his early navigations, and who, under his protection, had discovered and planted the islands of Porto Santo and Madeira. Columbus got possession of the journals and charts of this experienced navigator, and from them he learned the course which the Portuguese had held in making their discoveries, as well as the various circumstances which guided or encouraged them in their attempts. The study of these soothed and inflamed his favourite passion; and while he contemplated the maps, and read the description of the new countries which Perestrello had seen, his impatience to visit them became irresistible. In order to indulge it, he made a voyage to Madeira, and continued, during several years, to trade with that island, with the Canaries, the Azores, the settlements in Guinea,

and all the other places, which the Portuguese had discovered on the continent of Africa. By the experience which Columbus acquired during such a variety of voyages to almost every part of the globe, with which, at that time, any intercourse was carried on by sea, he was now become one of the most skilful navigators in Europe. But, not satisfied with that praise, his ambition aimed at something more.

To find out a passage by sea to the east Indies, was the great object in view at that period. From the time that the Portuguese doubled Cape de Verd, this was the point at which they aimed in all their navigations, and in comparison with it, all their discoveries in Africa appeared inconsiderable.

The fertility and riches of India had been known for many ages; its spices and other valuable commodities were in high request throughout Europe, and the vast wealth of the Venetians, arising from their having engrossed this trade, had raised the envy of all nations. But how intent soever the Portuguese were upon discovering a new rout to those desirable regions, they searched for it only by steering towards the south, in hopes of arriving at India, by turning to the east, after they had sailed round the farther extremity of Africa.

This course was still unknown, and, even if discovered, was of such immense length, that a voyage from Europe to India must have appeared, at that period, an undertaking extremely arduous, and of very uncertain issue. More than half a century had been employed in advancing from Cape de Verd to the equator; a much longer space of time might elapse before the more extensive navigation from that to India could be accomplished. These reflections upon the uncertainty, the danger, and tediousness of the course which the Portuguese were pursuing, naturally led Columbus to consider whether a shorter and more direct passage to the East Indies might not be found out. After revolving long and seriously every circumstance suggested by his superior knowledge in the theory as well as practice of navigation, after comparing attentively the observations of modern pilots, with the hints and conjectures of antient authors, he at last concluded, that by sailing directly towards the west, across the Atlantic ocean, new countries, which probably formed a part of the great continent of India, must infallibly be discovered.

Principles and arguments of various kinds, and derived from different sources, induced him to adopt this principle, seemingly as chimerical as it was new and extraordinary. The spherical figure of the earth was known, and its magnitude ascertained with some degree of accuracy. From this it was evident that the continents of Europe, Asia, and Africa, as far as they were known at that time, formed but a small portion of the terraqueous globe. It was suitable to our ideas concerning the wisdom and beneficence of the author of nature, to believe that the vast space still unexplored, was not covered entirely by a waste unprofitable ocean, but occupied by countries fit for the habitation of man. It appeared likewise extremely probable, that the continent on this side of the globe was balanced by a proportional quantity of land in the other hemisphere. These conclusions concerning the existence of another continent, drawn from the figured structure of the globe, were confirmed by the observations and conjectures of modern navigators. A Portuguese pilot, having stretched farther to the west than was usual at that time, took

up a piece of timber, artificially carved, floating upon the sea; and as it was driven towards him by a westerly wind, he concluded that it came from some unknown land situated in that quarter. Columbus's brother-in-law had found to the west of the Madeira isles a piece of timber, fashioned in the same manner, and brought by the same wind; and had likewise seen canes, of an enormous size, floating upon the waves, which resembled those described by Ptolemy, as productions peculiar to the East Indies. After a course of westerly winds, trees, torn up by the roots, were often driven upon the coast of the Azores, and at one time, the dead bodies of two men, with singular features, resembling neither the inhabitants of Europe nor of Africa, were cast on shore there. As the forces of this united evidence, arising from theoretical principles and practical observations, led Columbus to expect the discovery of new countries in the Western ocean, other reasons induced him to believe that these must be connected with the continent of India.

Though the antients had hardly ever penetrated into India, farther than the banks of the Ganges, yet some Greek authors had ventured to describe the provinces beyond that river. As men are prone, and at liberty to magnify what is remote or unknown, they represented them as regions of an immense extent. Etesias affirmed that India was as large as all the rest of Asia. Onesicritus, whom Pliny the naturalist follows, contended that it was equal to a third part of the habitable earth. Nearchus asserted, that it would take four months to march in a straight line from one extremity of India to the other. The journal of Mares Polo, who had proceeded towards the east, far beyond the limits to which any European had ever advanced, seemed to confirm these exaggerated accounts of the antients. By his magnificent descriptions of the kingdoms of Catha, Cipango, and of many other countries, the names of which were unknown to Europe, India appeared to be a region of vast extent. From these accounts, which, however defective, were the most accurate that the Europeans had received at that period, with respect to the remote parts of the East, Columbus drew a just conclusion. He contended, that, in proportion as the continent of India stretched out towards the east, it must, in consequence of the spherical figure of the earth, approach nearer to the islands which had lately been discovered to the west of Africa; that the distance from the one to the other was not very considerable; and that the most direct, as well as shortest course, to the remote regions of the east, was to be found by sailing due west. This notion concerning the vicinity of India to the western parts of our continent, was countenanced by some eminent writers among the antients, the sanction of whose authority was necessary in that age to procure a favourable reception to any tenet. Aristotle thought it probable that the column of Hercules, or the straits of Gibraltar, were not far removed from the east Indies, and that there might be a communication of sea between them. Seneca, in terms still more explicit, affirms, that, with a fair wind, one might sail from Spain to India in a few days. The famous Atlantic island described by Plato, and supposed by many to be a real country, beyond which an unknown continent was situated, is represented by him, as lying at no great distance from Spain. After weighing all the particulars, Columbus, in whose character the modesty and diffidence of true genius were united with the ardent enthusiasm of a projector, did not rest with such absolute

assurance, either upon his own arguments, or upon the authority of the antients, as not to consult such of his cotemporaries, as were capable of comprehending the nature of the evidence which he produced in support of his opinion. As early as the year 1474, he communicated his ideas concerning the probability of discovering new countries by sailing westward, to Paul, a physician of Florence, eminent for his knowledge of cosmography, and who, from the learning as well as candour which he discovers in his reply, appears to have been well entitled to the confidence which Columbus placed in him. He warmly approved of the plan, suggested several facts in confirmation of it, and encouraged Columbus to persevere in an undertaking so laudable, and which might redound so much to the honour of his country, and the benefit of Europe.

To a mind less capable of forming and of executing great designs than that of Columbus, all those reasons, observations, and authorities, would have served only as the foundation of some plausible and fruitless theory, which might have furnished matter for ingenious discourse or fanciful conjecture; but with his sanguine and enterprising temper, speculation leads directly to action.

Fully satisfied himself with respect to the truth of his system, he was impatient to bring it to the test of experiment, and to set out upon a voyage of discovery. The first step towards this, was to secure the patronage of some of the considerable powers of Europe, capable of undertaking such an enterprise. As long absence had not extinguished the affection which he bore to his native country, he wished that it should reap the fruit of his labours and invention. With this view, he laid his scheme before the senate of Genoa, and making his country the first tender of his service, offered to sail under the banners of the republic, in quest of the new regions which he expected to discover. But Columbus had resided so many years in foreign parts, that his countrymen were unacquainted with his abilities and character; and though a maritime people, were so little accustomed to distant voyages, that they could form no just idea of the principles on which he founded his hopes of success. They inconsiderately rejected his proposal, as the dream of a chimerical professor, and lost for ever the opportunity of restoring their commonwealth to its antient splendour.

Having performed what was due to his country, Columbus was so little discouraged by the repulse which he had received, that, instead of relinquishing his undertaking, he pursued it with fresh ardour. He made his next overture to John II. king of Portugal, in whose dominions he had been long established, and whom he considered, on that account, as having the second claim to his service. Here every circumstance seemed to promise him a more favourable reception. He applied to a monarch of an enterprising genius, no incompetent judge in naval affairs, and fond of patronizing every attempt to discover new countries. His subjects were the most experienced navigators in Europe, and the least apt to be intimidated, either by the novelty or boldness of any maritime expedition; in Portugal, the professional skill of Columbus, as well as his personal good qualities, were thoroughly known; and as the former rendered it probable that his scheme was not altogether visionary, the latter exempted him from the suspicion of any sinister intention in proposing it. Accordingly, the king listened to him in the most gracious manner, and referred the consideration of his plan to Diego Ortiz, bishop of

Cruta, and two Jewish physicians, eminent cosmographers whom he was accustomed to consult in matters of this kind. As in Genoa, ignorance had opposed and disappointed Columbus, in Lisbon he had to combat with prejudice, an enemy no less formidable. The persons, according to whose decision his scheme was to be adopted or rejected, had been the chief directors of the Portuguese navigators, and had advised to search for a passage to India, by steering a course directly opposite to that which Columbus recommended as shorter and more certain. They could not therefore approve of his proposal without submitting to the double mortification of condemning their own theory, and of acknowledging his superior sagacity. After teazing him with captious questions, and starting innumerable objections, with a view of betraying him into such a particular explanation of his system, as might draw from him a full discovery of its nature, they deferred passing a final judgment with respect to it. In the mean time they conspired to rob him of the honour and advantages which he expected from the success of his schemes, advising the king to dispatch a vessel secretly, in order to attempt the proposed discovery, by following exactly the same course which Columbus seemed to point out. John forgetting, on this occasion, the sentiments becoming a monarch, nearly adopted this perfidious counsel; but the pilot chosen to execute Columbus's plan, had neither the genius nor the fortitude of its author. Contrary winds arose, no sight of approaching land appeared, his courage failed, and he returned to Lisbon, execrating the project as equally extravagant and dangerous. Upon discovering this dishonourable transaction, Columbus felt the indignation natural to an ingenuous mind, and in the warmth of his resentment, determined to break off all intercourse with a nation capable of such flagrant treachery. He instantly quitted the kingdom, and landed in Spain, towards the close of the year 1484.

As he was now at liberty to court the protection of any patron, whom he could engage to approve his plan, and to carry it into execution, he resolved to propose it in person to Ferdinand and Isabella, who at that time governed the united kingdoms of Castile and Arragon, But as he had already experienced the uncertain issue of applications to kings and ministers, he took the precaution of sending into England his brother Bartholomew, to whom he had fully communicated his ideas, in order that he might negotiate at the same time with Henry VII. who was reputed one of the most sagacious, as well as opulent, princes in Europe.

Ferdinand and Isabella, though fully occupied by their operations against the Moors, paid so much regard to Columbus, as to remit the consideration of his plan to the queen's confessor, Ferdinand de Talavera. He consulted such of his countrymen as were supposed best qualified to decide, with respect to a subject of this kind. But true science had hitherto made so little progress in Spain, that the pretended philosophers, selected to judge in a matter of such moment, did not comprehend the first principles upon which Columbus founded his conjectures and hopes. Some of them, from mistaken notions concerning the dimensions of the globe, contended that a voyage to those remote parts of the east, which Columbus expected to discover, could not be performed in less than three years. Others concluded, that either he would find the ocean to be of infinite extent, according to the opinion of some antient philosophers; or, if he should

persisted in steering towards the west beyond a certain point, that the convex figure of the globe would prevent his return, and that he must inevitably perish in the vain attempt to open a communication between the two opposite hemispheres, which nature had for ever disjoined. Even without deigning to enter into any particular discussion, many rejected the scheme in general, upon the credit of a maxim, under which the ignorant and unenterprising shelter themselves in every age, "That it is presumptuous in any person to suppose that he alone possesses knowledge superior to all the rest of mankind united." They maintained, that if there were really any such countries as Columbus pretended, they could not have remained so long concealed; nor would the wisdom and sagacity of former ages have left the glory of this invention to an obscure Genoese pilot.

It required all Columbus's patience and address to negotiate with men capable of advancing such strange propositions. He had to contend not only with the obstinacy of ignorance, but with what is still more intractable, the pride of false knowledge. After innumerable conferences, and wasting five years in fruitless endeavours to inform and to satisfy judges so little capable of deciding with propriety, Talavera at last made such an unfavourable report to Ferdinand and Isabella, as induced them to acquaint Columbus, that until the war with the Moors should be brought to a period, it would be imprudent to engage in any new or expensive enterprise.

Though Columbus felt deeply the cruel blow given to his hopes, and retired immediately from a court, where he had been amused so long with vain expectations, his confidence in the justness of his own system did not diminish, and his impatience to demonstrate the truth of it by an actual experiment became greater than ever. Having courted the protection of sovereign states without success, he applied next to persons of inferior rank, and addressed successively the dukes of Medina Sidonia and Medina Celi, who, though subjects, were possessed of power and opulence more than equal to the enterprise which he projected. His negotiations with them proved as fruitless as those in which he had been hitherto engaged; for these noblemen were either as little convinced by Columbus's arguments as their superiors, or they were afraid of alarming the jealousy, and offending the pride of Ferdinand, by countenancing a scheme which he had rejected. Amid the painful sensations occasioned by such a succession of disappointments, Columbus had to sustain the additional distress of having no account from his brother, whom he had sent to the court of England. In his voyage to that country, Bartholomew had been so unfortunate as to fall into the hands of pirates; who having stripped him of every thing, detained him a prisoner for several years. At length he made his escape, and arrived in London, but in such extreme indigence, that he was obliged to employ himself, during a considerable time, in drawing and selling maps, in order to pick up as much money as would purchase a decent dress, in which he might venture to appear at court. He then laid before the king the proposals which he had been entrusted by his brother; and notwithstanding Henry's excessive caution and parsimony, which rendered him averse to new or expensive undertakings, he received Columbus's overtures with more approbation than any monarch to whom they had hitherto been presented. Meanwhile, Columbus being

unacquainted with his brother's fate, and having now no prospect of encouragement in Spain, resolved to visit the court of England in person, in hopes of meeting with a more favourable reception there. He had already made preparations for this purpose and taken measures for the disposal of his children during his absence, when Juan Perez, the guardian of the monastery of Rabida, near Palos, in which they had been educated, earnestly solicited him to defer his journey for a short time. Perez was a man of considerable learning, and of some credit with queen Isabella, to whom he was known personally. He was warmly attached to Columbus, with whose abilities as well as integrity he had many opportunities of being acquainted. Prompted by curiosity or by friendship, he entered upon an accurate observation of his system, in conjunction with a physician settled in the neighbourhood, who was a considerable proficient in mathematical knowledge.

This investigation satisfied them so thoroughly, with respect to the solidity of the principles on which Columbus founded his opinion, and the probability of success in executing the plan which he proposed, that Perez, in order to prevent his country from being deprived of the glory and benefit which must accrue to the patrons of such a grand enterprise, ventured to write to Isabella, conjuring her to consider the matter anew, with the attention which it merited. Moved by the representations of a person whom she respected, Isabella desired Perez to repair immediately to the village of Santa Fe, in which, on account of the siege of Grenada, the court resided at that time, that she might confer with him upon this important subject. The first effect of their interview was a gracious invitation of Columbus back to court, accompanied with the present of a small sum to equip him for the journey. As there was now a certain prospect that the war with the Moors would speedily be brought to a happy issue by the reduction of Grenada, which would leave the nation at liberty to engage in new undertakings; this, as well as the mark of royal favour with which Columbus had been lately honoured, encouraged his friends to appear with greater confidence than formerly, in support of his scheme.

The chief of these, Alonzo di Quintanella, comptroller of the finances in Castille, and Luis de Santangel, receiver of the ecclesiastical revenues in Arragon, whose meritorious zeal in promoting this great design, entitles their names to an honourable place in history, introduced Columbus to many persons of rank, and interested them warmly in his behalf. But it was not an easy matter to inspire Ferdinand with favourable sentiments. He still regarded Columbus's project as extravagant and chimerical, and in order to render the efforts of his partizans ineffectual, he had the address to employ in this new negotiation with him some of the persons who had formerly pronounced his scheme to be impracticable. To their astonishment, Columbus appeared before them with the same confident hopes of success as formerly, and insisted upon the same high recompence. He proposed that a small fleet should be fitted out under his command, to attempt the discovery; and demanded to be appointed hereditary admiral and viceroy of all the seas and lands which he should discover, and to have the tenth of the profits arising from them settled irrevocably upon himself and his descendants. At the same time he offered to advance the eighth part of the sum necessary for accomplishing his designs,

on condition that he should be entitled to a proportional share of benefit from the adventure. If the enterprise should totally miscarry, he made no stipulation for any reward or emolument whatever.

Instead of viewing this conduct as the clearest evidence of his full persuasion with respect to the truth of his own system, or being struck with that magnanimity which, after so many delays and repulses, would stoop to nothing inferior to its original claims, the persons with whom Columbus treated, began meanly to calculate the expence of the expedition, and the value of the reward which he demanded. The expence, moderate as it was, they represented to be too great for Spain in the present exhausted state of its finances. They contended, that the honours and emoluments claimed by Columbus were exorbitant, even if he should perform the utmost of what he had promised; and if all his sanguine hopes should prove illusive, such vast concessions to an adventurer would be deemed not only inconsiderate, but ridiculous. In this imposing garb of caution and prudence, their opinion appeared so plausible, and was so warmly supported by Ferdinand, that Isabella declined giving any countenance to Columbus, and abruptly broke off the negotiation with him which she had begun. This was more mortifying to Columbus than all the disappointments which he had hitherto met with. The invitation to court from Isabella, like an unexpected ray of light, had opened such prospects of success as encouraged him to hope that his labours were at an end; but now darkness and uncertainty returned, and his mind, firm as it was, could hardly support the shock of such an unforeseen reverse. He withdrew in deep anguish from court, with an intention of prosecuting his voyage to England as his last resource.

About that time Grenada surrendered, and Ferdinand and Isabella, in triumphal pomp, took possession of a city, the reduction of which extirpated a foreign power from the heart of their dominions, and rendered them masters of all the provinces extending from the bottom of the Pyrenees to the frontiers of Portugal. As the flow of spirits which accompanies success, elevates the mind and renders it enterprising, Quintanilla and Santangel, the vigilant and discerning patrons of Columbus, took advantage of this favourable situation, to make one effort more in behalf of their friend. They addressed themselves to Isabella, and after expressing some surprise, that she, who had always been the munificent patroness of generous undertakings, should hesitate so long to countenance the most splendid scheme that had ever been proposed to any monarch; they represented to her that Columbus was a man of a sound understanding and virtuous character, well qualified by his experience in navigation, as well as his knowledge of geometry, to form just ideas with respect to the structure of the globe, and the situation of its various regions; that, by offering to risk his own life and fortune in the execution of his scheme, he gave the most satisfying evidence, both of his integrity and hope of success; that the sum requisite for equipping such an armament as he demanded, was inconsiderable, and the advantages which might accrue from his undertaking were immense. That he demanded no recompence for his invention and labour, but what was to arise from the countries which he should discover; that, as it was worthy of her magnanimity to make this noble attempt to extend the sphere of human knowledge, and to open an intercourse with regions hitherto unknown, so it would afford the highest satis-

faction to her piety and zeal, after re-establishing the Christian faith in those provinces of Spain, from which it had been long banished, to discover a new world, to which she might communicate the light and blessings of divine truth; that if now she did not decide instantly, the opportunity would be irretrievably lost; that Columbus was on his way to foreign countries, where some prince, more fortunate or adventurous, would close with his proposals, and Spain would for ever bewail the fatal timidity, which had excluded her from the glory and advantages that she had once in her power to have enjoyed.

These forcible arguments, urged by persons of such authority, and at a juncture so well chosen, produced the desired effect. They dispelled all Isabella's doubts and fears; she ordered Columbus to be instantly recalled, declared her resolution of employing him on his own terms, and regretting the low state of her finances, generously offered to pledge her own jewels, in order to raise as much money as might be needed in making preparations for the voyage. Santangel, in a transport of gratitude, kissed the queen's hand, and in order to save her from having recourse to such a mortifying expedient for procuring money, engaged to advance immediately the sum that was requisite. Columbus had proceeded some leagues on his journey, when the messenger from Isabella overtook him. Upon receiving an account of the unexpected revolution in his favour, he returned directly to Santa Fé, though some remainder of diffidence still mingled itself with his joy.

But the cordial reception which he met with from Isabella, together with the near prospect of setting out on that voyage, which had so long been the object of his thoughts and wishes, soon effaced the remembrance of all that he had suffered in Spain, during eight tedious years of solicitation and suspence. The negotiation now went forward with facility and dispatch, and a treaty of capitulation with Columbus was signed, on the 17th of April, 1492. The chief articles of it were, First, Ferdinand and Isabella, as sovereigns of the ocean, constituted Columbus their high admiral in all the seas, islands, and continents, which should be discovered by his industry; and stipulated that he and his heirs for ever should enjoy that office, with the same powers and prerogatives which belonged to the high admiral of Castille, within the limits of his jurisdiction. Second, They appointed Columbus their viceroy in all the islands and continents which he should discover; but if, for the better administration of affairs, it should be hereafter necessary to establish a separate governor in any of those countries, they authorised Columbus to name three persons, of whom they would chuse one for that office; and the dignity of viceroy, with all its immunities, was likewise to be hereditary in the family of Columbus. Third, They granted to Columbus and his heirs for ever, the tenth of the free profits accruing from the productions and commerce of the countries which he should discover. Fourth, They declared, that if any controversy or lawsuit should arise with respect to any mercantile transactions in the countries which should be discovered, it should be determined by the sole authority of Columbus, or of judges to be appointed by him. Fifth, They permitted Columbus to advance one-eighth part of what should be expended in preparing for the expedition, and in carrying on commerce with the countries which he should discover; and entitled him in return to an eighth part of the profits. Though the name of Ferdinand appears conjoined with that of Isabella in this transaction, his dis-

trust of Columbus was still so violent, that he refused to take any part of the enterprise, as king of Arragon.

As the whole expence of the expedition was to be defrayed by the crown of Castille, Isabella reserved for her subjects of that kingdom, an exclusive right to all the benefits which might arise from its success.

As soon as the treaty was signed, Isabella, by her attention and activity in forwarding the preparations for the voyage, endeavoured to make some reparation to Columbus for the time which he had lost in fruitless solicitation. By the 12th of May, all that depended upon her was adjusted; and Columbus waited on the king and queen, in order to receive their final instructions. Every thing respecting the destination and conduct of the voyage, they committed implicitly to the disposal of his prudence. But that they might avoid giving any just cause of offence to the king of Portugal, they strictly enjoined him not to approach near to the Portuguese settlements on the coast of Guinea, or to any of the other countries which the Portuguese claimed as discoveries. Isabella had ordered the ships, of which Columbus was to take the command, to be fitted out in the port of Palos, a small maritime town in the province of Andalusia. As the Guardian, Juan Peres, to whom Columbus had already been so much indebted, resided in the neighbourhood of this place, he, by the influence of that good ecclesiastic, as well as by his own connection with the inhabitants, not only raised among them what he wanted of the sum that he was bound by treaty to advance, but engaged several of them to accompany him in the voyage.

The chief of these associates were three brothers of the name of Pinzon, of considerable wealth, and of great experience in naval affairs, who were willing to hazard their lives and fortunes in the expedition. But after all the efforts of Isabella and Columbus, the armament was not suitable either to the dignity of the nation by which it was equipped, or to the importance of the service for which it was destined. It consisted of three vessels. The largest a ship of no considerable burden, was commanded by Columbus, as Admiral, who gave it the name of Santa Maria, out of respect to the blessed Virgin, whom he honoured with singular devotion. Of the second, called the Pinta, Martin Pinzon was captain, and his brother Francis pilot. The third named the Nigra, was under the command of Vincent Yantz Pinzon. These two were light vessels, hardly superior in burden or force to large boats. This squadron, if it merits that name, was victualled for twelve months, and had on board ninety men, mostly sailors, together with a few adventurers who followed the fortune of Columbus, and some gentlemen of Isabella's court, whom she appointed to accompany him.

Though the expences of this undertaking was one of the circumstances which chiefly alarmed the court of Spain, and retarded so long the negotiation with Columbus, the sum employed in fitting out this squadron did not exceed four thousand pounds. As the art of ship-building in the 15th century was extremely rude, and the bulk of vessels was accommodated to the short and easy voyages along the coast which they were accustomed to perform, it is a proof of the courage as well as enterprizing genius of Columbus, that he ventured with a fleet so unfit for a distant navigation, to explore unknown seas, where he had no chart to guide him, no knowledge of the tides and currents, and no

experience of the dangers to which he might be exposed. His eagerness to accomplish the great design which had so long engrossed his thoughts, made him overlook or disregard every circumstance that would have intimidated a mind less adventurous. He pushed forward the preparations with such ardour, and was seconded so effectually by the persons to whom Isabella committed the superintendance of this business, that every thing was soon in readiness for the voyage. But as Columbus was deeply impressed with sentiments of religion, he would not set out upon an expedition so arduous, and of which one great object was to extend the knowledge of his Christian faith, without imploring publicly the guidance and protection of heaven. With this view, he, together with all the persons under his command, marched in solemn procession to the monastery of Rabeida.

After confessing their sins and obtaining absolution, they received the holy sacrament from the hand of the Guardian, who joined his prayers to theirs, for the success of an enterprise which he had so zealously patronised. Next morning, being Friday, 3d of August, in the year 1492, Columbus set sail a little before sun-rise, in presence of a vast crowd of spectators, who sent up their supplications to heaven for the prosperous issue of the voyage, which they wished rather than expected. Columbus steered directly for the Canary islands, and arrived there August 13th, 1492, without any occurrence that would have deserved notice on any other occasion. But in a voyage of such expectation and importance, every circumstance was the object of attention. The rudder of the Pinta broke loose the day after she left the harbour, and that accident alarmed the crew, no less superstitious than unskilful, as a certain omen of the unfortunate destiny of the expedition. Even in the short run to the Canaries, the ships were found to be so crazy and ill-appointed, as to be very improper for a navigation, which was expected to be both long and dangerous. Columbus refitted them, however, to the best of his power, and having supplied himself with fresh provision, he took his departure from Gomera, one of the most westerly of the Canary islands, on the sixth of September.

Here the voyage of discovery may properly be said to begin, for Columbus, holding his course due west, left immediately the usual track of navigators, and stretched into unfrequented seas. The first day, as it was very calm, he made but little way, but on the second, he lost sight of the Canaries, and many of the sailors, dejected already, and discouraged when they contemplated the boldness of the undertaking, began to beat their breasts and to shed tears, as if they were never more to behold land. Columbus comforted them with assurances of success, and the prospect of vast wealth, in those opulent regions, whither he was conducting them. This early discovery of the spirit of his followers, taught Columbus that he must prepare to struggle, not only with the unavoidable difficulties which might be expected from the nature of his undertaking, but with such as were likely to arise from the ignorance and timidity of the people under his command. And he perceived that the art of governing the minds of men, would be no less requisite for accomplishing the discoveries which he had in view, than naval skill and undaunted courage. Happily for himself, and for the country by which he was employed, he joined to the ardent temper and inventive genius of a projector, virtues of another species, which are rarely united with them; he possessed a thorough knowledge of

mankind, an insinuating address, a patient perseverance in executing any plan, the perfect government of his passions, and the talent of acquiring an ascendant over those of other men. All these qualities, which formed him for command, were accompanied with that superior knowledge of his profession, which begets confidence in time of difficulty and danger.

To unskilful Spanish sailors, accustomed only to coasting voyages in the Mediterranean, the maritime science of Columbus, the fruit of thirty years experience, improved by an acquaintance with all the inventions of the Portuguese, appeared immense. As soon as they put to sea, he regulated every thing by his sole authority; he superintended the execution of every order; and allowing himself only a few hours for sleep, he was at all other times upon deck. As his course lay through seas which had not formerly been visited, the sounding line or instruments for observation were continually in his hands. After the example of the Portuguese discoverers, he attended to the motion of tides and currents, watched the flight of birds, the appearance of fishes, of sea-weeds, and of every thing which floated on the waves, and entered every occurrence, with a minute exactness, in the journal which he kept. As the length of the voyage could not fail of alarming sailors habituated only to short excursions, Columbus endeavoured to conceal from them the real progress which they made. With this view, though they run eighteen leagues on the second day after they left Gomera, he gave out that they had advanced only fifteen, and he uniformly employed the same artifice of reckoning short during the whole voyage. By the 14th of September, the fleet was above 200 leagues to the west of the Canary isles, at a greater distance from land than any Spaniard had been before that time. There they were struck with an appearance no less astonishing than new. They observed that the magnetic needle in their compasses, did not point exactly to the polar star, but veered towards the west; and as they proceeded, this variation increased. This appearance, which is now familiar, though it still remains one of the mysteries of nature, into the cause of which the sagacity of man hath not been able to penetrate, filled the companions of Columbus with terror. They were now in a boundless, unknown ocean, far from the usual course of navigation; nature itself seemed to be altered, and the only guide which they had left was about to fail them. Columbus, with no less quickness than ingenuity, invented a reason for this appearance, which, though it did not satisfy himself, seemed so plausible to them, that it dispelled their fears, or silenced their murmurs. He still continued to steer due west, nearly in the same latitude with the Canary islands. In this course, he came within the sphere of the trade wind, which blows invariably from east to west, between the tropics, and a few degrees beyond them. He advanced before the steady gale with such uniform rapidity, that it was seldom necessary to shift a sail. When about four hundred leagues to the west of the Canaries, he found the sea so covered with weeds, that it resembled a meadow of vast extent; and in some places they were so thick, as to retard the motion of the vessels. This strange appearance occasioned new alarm and disquiet. The sailors imagined that they were now arrived at the utmost boundary of the navigable ocean, that these floating weeds would obstruct their farther progress, and concealed dangerous rocks, or some large tract of land, which had sunk, they knew not how, in that

place. Columbus endeavoured to persuade them, that what had alarmed ought rather to have encouraged them, and was to be considered as a sign of approaching land. At the same time, a brisk gale arose, and carried them forward. Several birds were seen hovering about the ship, and directed their flight towards the west. The desponding crew resumed some degree of spirit, and began to entertain fresh hopes. Upon the 1st of October, they were, according to the admiral's reckoning, 770 leagues to the west of the Canaries; but lest his men should be intimidated by the prodigious length of the navigation, he gave out that they had proceeded only 584 leagues. And fortunately for Columbus, neither his own pilot nor those of the other ships, had skill sufficient to correct this error and discover the deceit. They had now been above three weeks at sea; they had proceeded far beyond what former navigators had attempted or deemed possible; all their prognostics of discovery, drawn from the flight of birds and other circumstances, had proved fallacious; the appearance of land, with which their own credulity, or the artifice of their commander, had, from time to time, flattered and amused them, had been altogether illusive, and their prospect of success seemed now to be as distant as ever.

These reflections recurred often to men who had no other object or occupation than to reason and discourse concerning the intention and circumstances of their expedition. They made impression at first upon the ignorant and timid, and extending by degrees to such as were better informed or more resolute, the contagion spread at length from ship to ship. From secret whisperings or murmurings, they proceeded to open cabals and public complaints; they taxed their sovereign with inconsiderate credulity, in paying such regard to the vain promises and rash conjectures of an indigent foreigner, as to hazard the lives of so many of her own subjects, in prosecuting a chimerical scheme. They affirmed that they had fully performed their duty, by venturing so far in an unknown and hopeless course, and could incur no blame for refusing to follow any longer a desperate adventurer to certain destruction. They contended that it was necessary to think of returning to Spain, while their crazy vessels were still in a condition to keep the sea, but expressed their fears that the attempt would prove vain, as the wind, which had hitherto been so favourable to their course, must render it impossible to sail in the opposite direction. All agreed that Columbus should be compelled by force to adopt a measure, on which their common safety depended. Some of the more audacious proposed, as the most expeditious and certain method of getting rid at once of his remonstrances, to throw him into the sea, being persuaded, that, on their return to Spain, the death of an unsuccessful projector would excite little concern, and be inquired into with no curiosity. Columbus was fully sensible of his perilous situation. He had observed, with great uneasiness, the fatal operations of ignorance and of fear, in producing disaffection among his crew, and saw that it was now ready to burst out into open mutiny. He retained, however, perfect presence of mind. He affected to seem ignorant of their machinations. Notwithstanding the agitation and solicitude of his own mind, he appeared with a cheerful countenance, like a man satisfied with the progress he had made, and confident of success. Sometimes he employed all the arts of insinuation to sooth his men. Sometimes he endeavoured to work upon their ambition or avarice, by

magnificent descriptions of the fame and wealth they were about to acquire. On other occasions he assumed a tone of authority, and threatened them with vengeance from their sovereign, if, by their dastardly behaviour, they should defeat this noble effort to promote the glory of God, and to exalt the Spanish name above that of every other nation.

Even with seditious sailors, the words of a man whom they had been accustomed to reverence, were weighty and persuasive, and not only restrained them from those violent excesses, which they meditated, but prevailed with them to accompany their admiral for some time longer. As they proceeded, the indications of approaching land seemed to be more certain, and excited hope in proportion. The birds began to appear in flocks, making towards the south-west. Columbus, in imitation of the Portuguese navigators, who had been guided in several of their discoveries by the motion of birds, altered his course from due west towards that corner whither they pointed their flight. But after holding on for several days in this new direction, without any better success than formerly, having seen no object during thirty days, but the sea and the sky, the hopes of his companions subsided faster than they had risen; their fears revived with additional force; impatience, rage, and despair, appeared in every countenance. All sense of subordination was lost; the officers, who had hitherto concurred with Columbus in opinion, and supported his authority, now took part with the private men; they assembled tumultuously together on the deck, expostulated with their commander, mingled tears with their expostulations, and required him instantly to tack about, and to return to Europe

Columbus perceived that it would be of no avail to have recourse to any of his former arts, which, having been tried so often, had lost their effect; and that it was impossible to rekindle any zeal for the success of the expedition, amongst men, in whose breasts fear had extinguished every generous sentiment. He saw that it was no less vain to think of employing either gentle or severe measures, to quell a mutiny so general and so violent. It was necessary on these accounts to sooth the passions which he could no longer command, and to give way to a torrent too impetuous to be checked. He promised solemnly to his men, that he would comply with their request, provided they would accompany him, and obey his commands for three days longer; and if, during that time, land were not discovered, he would then abandon the enterprise, and direct his course toward Spain. Enraged as the sailors were, and impatient to turn their faces again towards their native country, this proposition did not appear to them unreasonable. Nor did Columbus hazard much in confining himself to a term so short. The presages of discovering land were now so numerous and promising, that he deemed them infallible. For some days the sounding-line had reached the bottom, and the soil which it brought up indicated land to be at no great distance. The flocks of birds increased, and were composed not only of sea-fowl, but of such land birds, as could not be supposed to fly far from the shore. The crew of the Pinta observed a cane floating, which seemed to be newly cut, and likewise a piece of timber artificially carved. The sailors aboard the Nigra, took up the branch of a tree, with red berries, perfectly fresh. The clouds around the setting sun assumed a new appearance. The air was more mild and

warm, and during night the wind became unequal and variable. From all these symptoms, Columbus was so confident of being near land, that on the evening of the 11th of October, after public prayers for success, he ordered the sails to be furled, and the ship to lie to, keeping strict watch lest they should be driven ashore in the night. During this interval of suspence and expectation, no man shut his eyes, all kept upon deck, gazing intently towards that quarter where they expected to discover the land, which had been so long the object of their wishes. About two hours before midnight, Columbus, standing on the forecastle, observed a light at a distance, and privately pointed it out to Pedro Guttierez, a page of the queen's wardrobe. Guttierez perceived it, and calling to Salcedo, comptroller of the fleet, all three saw it in motion, as if it were carried from place to place. A little after midnight, the joyful sound of *land! land!* was heard from the Pinta, which kept always a-head of the other ships. But having been so often deceived by fallacious appearances, every man was now become slow of belief; all waited with the anguish of uncertainty and impatience for the return of day. As soon as morning dawned, Friday, October 12th, all doubts and fears were dispelled. From every ship an island was seen, about two leagues to the north, whose flat and verdant fields, well stored with wood, and watered with many rivulets, presented the aspect of a delightful country. The crew of the Pinta instantly began the Te Deum, as a hymn of thanksgiving to God, and were joined by those of the other ships, with tears of joy, and transports of congratulation. This office of gratitude to heaven was followed by an act of justice to their commander. They threw themselves at the feet of Columbus, with feelings of self-condemnation, mingled with reverence. They implored him to pardon their ignorance, incredulity, and insolence, which had created him so much unnecessary disquiet, and had so often obstructed the prosecution of his well-concerted plan; and passing, in the warmth of their admiration, from one extreme to another, they now pronounced the man, whom they had so lately reviled and threatened, to be a person inspired by heaven with sagacity and fortitude more than human, in order to accomplish a design, so far beyond the ideas and capacities of all former ages. As soon as the sun arose, all their boats were manned and armed, they rowed towards the island with their colours displayed, with warlike music and other martial pomp. As they approached the coast, they saw it covered with a multitude of people, whom the novelty of the spectacle had drawn together, whose attitudes and gesture expressed wonder and astonishment, at the strange objects which presented themselves to their view. Columbus was the first European who set foot in the new world which he had discovered. He landed in a rich dress, with a naked sword in his hand. His men followed, and kneeling down, they all kissed the ground which they had so long desired to see. They next erected a crucifix, and prostrating themselves before it, returned thanks to God for conducting their voyage to such a happy issue. They then took solemn possession of the country for the crown of Castille and Leon, with all the formalities which the Portuguese were accustomed to observe in acts of this kind, in their new discoveries. The Spaniards, while thus employed, were surrounded by many of the natives, who gazed in silent admiration, upon actions which they could not comprehend, and of which they could not foresee the consequences. The dress of the Spaniards, the whiteness of their

skins, their beards, their arms, appeared strange and surprising. The vast machines in which they had traversed the ocean, that seemed to move upon the waters with wings, and uttered a dreadful sound, resembling thunder, accompanied with lightning and smoke, struck them with such terror, that they began to respect their new guests as a superior order of beings, and concluded that they were children of the sun, who had descended to visit the earth.

The Europeans were hardly less amazed at the scene now before them. Every herb, shrub, and tree, was different from those which flourished in Europe. The soil seemed to be rich, but bore few marks of cultivation. The climate, even to Spaniards, felt warm, though extremely delightful. The inhabitants appeared in the simple innocence of nature, entirely naked. Their black hair, long and uncurled, flowed upon their shoulders, or was bound in tresses round their heads. They had no beards, and every part of their bodies was perfectly smooth. Their complexion was of a dusky copper colour, their features singular rather than disagreeable, their aspect gentle and timid. Though not tall, they were well-shaped and active. Their faces, and several parts of their body, were fantastically painted with glaring colours. They were shy at first, through fear, but soon became familiar with the Spaniards, and with transports of joy, received from them small bells, glass beads, or other baubles, in return for which they gave them such provision as they had, and some cotton yarn, the only commodity of value that they could produce. Towards evening, Columbus returned to his ship, accompanied by a great number of the islanders in their boats, which they called canoes, and though rudely formed, out of the trunk of a single tree, they rowed them with considerable dexterity. Thus in the first interview between the inhabitants of the old and new worlds, every thing was conducted amicably, and to their mutual satisfaction. The former, enlightened and ambitious, formed already vast ideas with respect to the advantages which they might derive from the regions that began to open to their view. The latter, simple and undiscerning, had no foresight of the calamities and desolation which were approaching their country. Columbus, who now assumed the title and authority of admiral and viceroy, called the island which he had discovered St. Salvador. It is better known by the name of Guanahani, which the natives gave it, and is one of the large cluster of islands called the Lucayos or Bahama Isles. It is situated above three thousand miles to the west of Gomera, from whence the squadron took its departure, and only four leagues to the south of it; so little had Columbus deviated from the western course, which he had chosen as the most proper. Columbus employed the next day in visiting the coast of the island; and from the universal poverty of the inhabitants, he perceived this was not the rich country for which he sought. But conformable to his theory concerning the discovery of those regions of Asia, which stretched towards the east, he concluded that St. Salvador was one of the islands which geographers described as situated in the great ocean adjacent to India. Having observed that most of the people whom he had seen wore small plates of gold, by way of ornament, in their nostrils, he eagerly inquired where they got that precious metal. They pointed towards the south, and made him comprehend by signs, that gold abounded in countries situated in that quarter. Thither he immediately determined to direct his course, in full confidence of

finding there, those opulent regions which had been the object of his voyage. He took along with him seven of the natives of St. Salvador, that by acquiring the Spanish language, they might serve as guides and interpreters: and those innocent people considered it as a mark of distinction, when they were selected to accompany him.

He saw several islands, and touched at three of the largest, on which he bestowed the names of St. Mary of the Conception, Fernandina, and Isabella. But as their soil, productions, and inhabitants nearly resembled those of St. Salvador, he made no stay in any of them. He inquired every where for gold, and the signs that were uniformly made by way of answer, confirmed him in the opininion that it was brought from the south. He followed that course, and soon discovered a country which appeared very extensive, not perfectly level, like those he had already visited, but so diversified with hills, rivers, woods, and plains, that he was uncertain whether it might prove an island, or part of the continent.

The natives of St. Salvador, whom he had on board, called it Cuba; Columbus gave it the name of Juana. He entered the mouth of a large river with his squadron, and all the inhabitants fled to the mountains as he approached the shore. But as he resolved to careen his ships in that place, he sent some Spaniards, together with one of the people of St. Salvador, to view the interior part of the country. They having advanced about 60 miles from the shore, reported upon their return, that the soil was richer and more cultivated than any they had yet discovered; that, beside many scattered cottages, they found one village containing above 1000 inhabitants; that the people, though naked, seemed to be more intelligent than those of St. Salvador, but had treated them with the same respectful attention, kissing their feet, and honouring them as sacred beings, allied to heaven; that they had given them to eat a certain root, the taste of which resembled roasted chesnuts; and likewise a singular species of corn, called maize, which, either when roasted whole or ground into meal, was abundantly palatable; that there seemed to be no four-footed animals in the country, but a species of dog, which could not bark, and a creature resembling a rabbit, but of a much smaller size; and that they had observed some ornaments of gold among the people, but of no great value.

These messengers were accompanied by some of the natives, who informed Columbus, that the gold of which they made their ornaments was found in Cubanacan. By this word they meant the inland part of Cuba; but Columbus being ignorant of their language, as well as unaccustomed to their pronunciation, and his thoughts running continually upon his own theory concerning the discovery of the East Indies, he was led by the resemblance of sound, to suppose they spoke of the Great Khan, and imagined the opulent kingdom of Cathay, described by Marco Polo was not very remote. This induced him to employ some time in viewing the country. He visited almost every harbour, from Porto del Principe, on the north coast of Cuba, to the eastern extremity of the island: but though delighted with the beauty of the scenes, which every where presented themselves, and amazed at the luxuriant fertility of the soil, both of which, from their novelty, made a more lively impression on the imagination, he did not find gold in such abundance as to satisfy either the avarice of his followers, or the expectation of the court to which he was to return. The people of the country, as much astonished at his eager-

ness in quest of gold, as the Europeans were at their ignorance and simplicity, pointed towards the east, where an island they called Hayti was situated, in which that metal was more abundant than among them. Columbus ordered his squadron to bend its course thither; but Martin Alonzo Penzon, impatient to be the first to take possession of the treasures which this country was supposed to contain, quitted his companions, regardless of all the admiral's signals to slacken sail until they should come up with him.

Columbus retarded by contrary winds, did not reach Hayti till the 6th of December. He called the port where he first touched St. Nicholas, and the island itself Hispaniola, in honour of the kingdom by which he was employed; and it is the only country of those which he had yet discovered, which has retained the name he gave it. He did not remain long at St. Nicholas, but sailing along the north coast of the island, entered another harbour, which he called Conception. Having, with some difficulty, procured an interview with the inhabitants, he found them gentle, credulous, and timid, to a degree which rendered it easy to acquire an ascendency over them, especially as their excessive admiration led them to believe that the Spaniards were more than mortals, and descended immediately from heaven. They possessed gold in a greater abundance than their neighbours, which they readily exchanged for bells, beads, or pins; and in this unequal traffic both parties were highly pleased, each considering themselves as gainers by the transaction.

Columbus still intent on discovering the mines which yielded gold, continued to interrogate all the natives with whom he had any intercourse, concerning their situation. They concurred in pointing out a mountainous country, which they called Cibas, at some distance from the sea, and farther to the east. To that quarter Columbus directed his course. He put into a commodious harbour, which he called St. Thomas, and found that district to be under the government of a powerful cazique, named Guacanahari. This prince immediately sent messengers who delivered to Columbus the present of a mask curiously fashioned, with the ears, nose, and mouth of beaten gold, and invited him to the place of his residence near Cape Francois.

In consequence of this invitation Columbus sailed from St. Thomas, on the 24th of December with a fair wind and the sea perfectly calm; and, as amidst the multiplicity of his occupations he had not shut his eyes for two days, he retired at midnight to take some repose, having committed the helm to the pilot, with strict orders not to quit it for a moment. The pilot dreading no danger, carelessly left the helm to an unexperienced cabin boy, and the ship carried away by a current, was dashed against a rock. The violence of the shock awakened Columbus. He ran up to the deck. There all was confusion and despair. He alone retained presence of mind. He ordered the mast to be cut down in order to lighten the ship, but all his endeavours were too late; the vessel opened near the keel, and filled so fast with water, that its loss was inevitable. The smoothness of the sea, and the timely assistance of boats from the Nigra, enabled the crew to save their lives. The Indians crowded the shore, lamented with tears the misfortune of the Spaniards, and putting to sea a number of canoes assisted in saving whatever could be got out of the wreck. As fast as the goods were

landed, Guacanahani in person took charge of them. By his orders they were all deposited in one place, and armed centinels were posted, who kept the multitude at a distance, and in the morning he in person visited Columbus, and endeavoured to console him for his loss, by offering all he possessed to repair it.

Columbus was now possessed of but one vessel, with which he was desirous immediately to set sail for Spain, and therefore determined on leaving part of his crew on the island. They would thus have an opportunity to learn the language of the natives, study their disposition, examine the nature of the country, search for mines, prepare for the commodious settlement of the colony with which he proposed to return, and thus secure and facilitate the acquisition of those advantages which he expected from his discoveries. This proposal proved equally pleasing to the mariners and the prince, and was therefore without delay carried into execution. Thirty-eight of the Spaniards were appointed to remain behind, furnished with every thing necessary for their subsistence, and loaded with the strictest injunctions to cultivate friendship with the natives, and unanimity with each other.

Having thus taken every precaution for the security of the colony, he left Navidad on the 4th of January, 1493, and steering towards the east, discovered and gave names to most of the harbours on the northern coast of the island. On the 6th he descried the Pinta, and came up with her after a separation of more than six weeks. Pinzon endeavoured to justify his conduct as the effect of contrary winds, and lame as his apology was, it was admitted by the admiral.

The voyage was prosperous to the 14th of February, and Columbus had advanced near 500 leagues across the Atlantic, when the wind began to rise, and continued to blow with encreasing rage, which terminated in a furious hurricane. Every expedient which the naval experience of Columbus could devise was employed in order to save the ships. But it was impossible to withstand the violence of the storm, and as they were still far from any land, destruction seemed inevitable. The sailors had recourse to prayers to Almighty God, to the invocation of saints, to vows and charms, to every thing that religion dictates, or superstition suggests to the affrighted mind of man. No prospect of deliverance appearing, they abandoned themselves to despair, and expected every moment to be swallowed up among the waves. Besides the passions which voluntarily agitate and alarm the human mind in such awful situations, Columbus had to endure feelings peculiar to himself. He dreaded that all knowledge of the discoveries he had made was now to perish, and his name descend to posterity as that of a rash adventurer, instead of being transmitted with the honour due to the successful conductor of a noble enterprise. These reflections prevailed over all sense of his own personal danger. Less affected with the loss of life, than solicitous to preserve the memory of what he had attempted and atchieved, he retired to the cabin and wrote upon parchment, a short account of the voyage he had made, of the course he had taken, of the situation of the countries which he had discovered, and of the colony he had left there. Having wrapped up this in an oiled cloth, which he inclosed in a cake of wax, he put it into a cask carefully stopped up, and committed it to the sea, in hopes that some fortunate accident might preserve a deposit of such importance to the world.

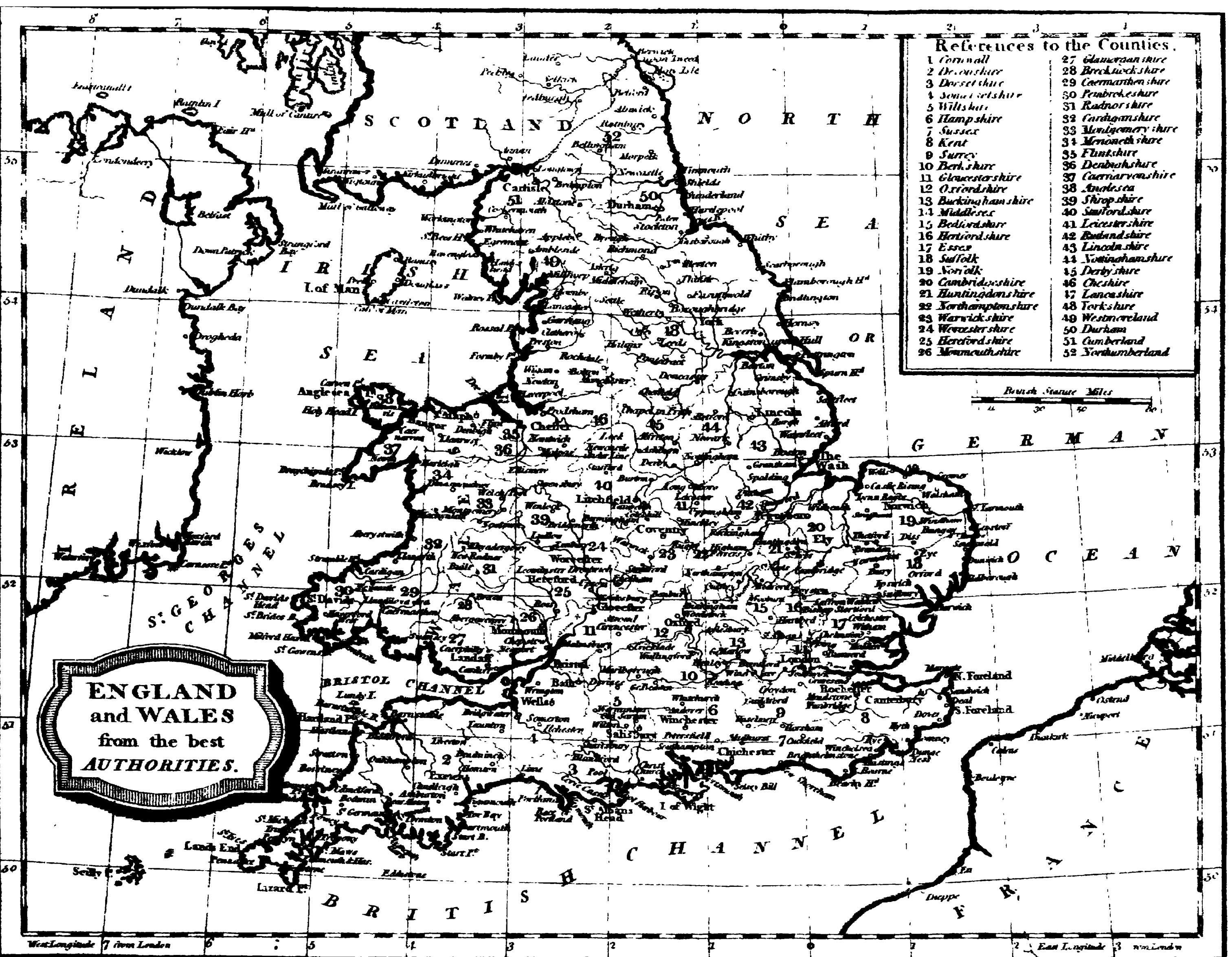
At length providence interposed to save a life reserved for further services. The wind abated, the sea became calm, and on the evening of the 15th they came in sight of St. Mary, one of the Azore islands. Here they obtained some fresh provisions, but they could not gain sight of the Pinta, which had been separated from them during the storm, and which Columbus suspected had borne away for Spain, to carry the first news of the discovery. In order to prevent this, he left the Azores on the 24th of February, as soon as the weather would permit.

When near the coast of Spain, he was overtaken by another terrible tempest, which obliged him to take shelter in the river Tagus. Upon application to the king of Portugal, on the 4th of March, 1493, he was allowed to land at Lisbon; and notwithstanding the envy it was natural for the Portuguese to feel, when they beheld another nation entering upon that province of discovery which they had hitherto deemed peculiarly their own, and in its first essay, not only rivalling, but even eclipsing their fame, Columbus was received with all the marks of distinction due to a man, who had performed things so extraordinary and unexpected. The king admitted him into his presence, treated him with the greatest respect, and listened to the account which he gave of his voyage with admiration mingled with regret.

Columbus was so impatient to return to Spain, that he remained but five days at Lisbon. On the 15th of March he arrived in the port of Palos, seven months and eleven days from the time when he set out from thence on his voyage. As soon as his ship was discovered approaching the port, all the inhabitants of Palos ran eagerly to the shore in order to welcome their relations and fellow citizens, and to hear tidings of their voyage. When the prosperous issue of it was known, when they beheld the strange people, the unknown animals, and singular productions brought from the countries that had been discovered, the effusion of joy was general and unbounded. The bells were rung, the cannons fired: Columbus was received at landing with royal honours, and all the people, in solemn procession, accompanied him and his crew to the church, where they returned thanks to heaven, which had so wonderfully conducted and crowned with success, a voyage of greater length and more importance than had been attempted in any former age. On the evening of the same day he had the satisfaction of seeing the Pinta, which the violence of the tempest had driven far to the north, enter the harbour.

The first care of Columbus was to inform the king and queen, who were then at Barcelona, of his arrival and success. Ferdinand and Isabella, no less astonished than delighted with this unexpected event, desired Columbus, in terms the most respectful and flattering, to repair immediately to court, that from his own mouth they might receive a full detail of his extraordinary services and discoveries. During his journey to Barcelona, the people crowded from the adjacent country, following him every where with admiration and applause. His entrance into the city was conducted by order of Ferdinand and Isabella, with pomp suitable to the great event, which added such distinguished lustre to their reign. The people whom he brought along with him from the countries which he had discovered, marched first, and by their singular complexion, the wild peculiarity of their features, and uncouth finery, seemed like men of another species. Next to them were carried the ornaments of gold, fashioned by the rude art

of the natives, the grains of gold found in the mountains, and dust of the same metal gathered in the rivers. After these appeared the various commodities of the new discovered countries, together with their curious productions. Columbus himself closed the procession, and attracted the eyes of all the spectators, who gazed with admiration on the extraordinary man, whose superior sagacity and fortitude had conducted their countrymen, by a route concealed from past ages, to the knowledge of a new world. Ferdinand and Isabella received him clad in their royal robes, and seated upon a throne under a magnificent canopy. When he approached they stood up, and raising him as he kneeled to kiss their hands, commanded him to take his seat upon a chair prepared for him, and to give a circumstantial account of his voyage. He delivered it with a gravity and composure, no less suitable to the disposition of the Spanish nation, than to the dignity of the audience to whom he spoke; and with that modest simplicity which characterises men of superior minds; who, satisfied with having performed great actions, court not vain applause by an ostentatious display of their exploits. When he had finished his narration, the king and queen, kneeling down, offered up solemn thanks to Almighty God, for the discovery of those new regions, from which they expected so many advantages to flow to their subjects. Every mark of honour that gratitude or admiration could suggest was conferred upon Columbus. Letters patent were issued confirming to him and his heirs all the privileges contained in the capitulation concluded at Santa Fé; his family was ennobled; the king and queen, and, after their example, the courtiers treated him on every occasion, with all the ceremonious respect paid to persons of the highest rank. Orders were given to equip, without delay, an armament of such force, as might enable him not only to take possession of the countries which he had already discovered, but to go in search of those more opulent regions, which he still confidently expected to find. In the mean time his fame spread throughout Europe, and every where excited the spirit of naval adventure.


ENGLAND
and WALES
from the best
AUTHORITIES.
References to the Counties.
1 Cornwall
2 Devonshire
3 Dorsetshire
4 Somersetshire
5 Wiltshire
6 Hampshire
7 Sussex
8 Kent
9 Surrey
10 Berkshire
11 Gloucestershire
12 Oxfordshire
13 Buckinghamshire
14 Middlesex
15 Bedfordshire
16 Hertfordshire
17 Essex
18 Suffolk
19 Norfolk
20 Cambridgeshire
21 Huntingdonshire
22 Northamptonshire
23 Warwickshire
24 Worcestershire
25 Herefordshire
26 Monmouthshire
27 Glamorganshire
28 Brecknockshire
29 Caermarthenshire
30 Pembrokeshire
31 Radnorshire
32 Cardiganshire
33 Montgomeryshire
34 Merionethshire
35 Flintshire
36 Denbighshire
37 Caernarvonshire
38 Anglesea
39 Shropshire
40 Staffordshire
41 Leicestershire
42 Rutlandshire
43 Lincolnshire
44 Nottinghamshire
45 Derbyshire
46 Cheshire
47 Lancashire
48 Yorkshire
49 Westmoreland
50 Durham
51 Cumberland
52 Northumberland
British Statute Miles
SCOTLAND
NORTH SEA
GERMAN OCEAN
IRISH SEA
IRELAND
St. GEORGES CHANNEL
BRISTOL CHANNEL
BRITISH CHANNEL
FRANCE
I. of Man
I. of Wight
Anglesea
Carlisle
Durham
York
Lincoln
Norwich
Ely
Litchfield
Coventry
Worcester
Hereford
Oxford
London
Canterbury
Chichester
Winchester
Salisbury
Wells
Bath
Bristol
Gloucester
Chester
The Wash
N. Foreland
S. Foreland
Lands End
Lizard Pt.
Scilly I.
West Longitude from London
East Longitude from London

VIEW OF THE WORLD.

BOOK II.

British Empire.

Kingdoms	Length.	Breadth.	Chief Towns.	Dist. & bearing from London.	Difference of time from London. H. M.	Religion
England with Wales.	330	300	London.	———	———	Protestant, Episcopal Church, Dissenters, and Catholics.
Scotland.	300	150	Edinburgh.	400 N.	0 : 12 aft.	Presbyterians, Seceders, and Catholics.
Ireland.	285	160	Dublin.	270 N W.	0 : 26 aft.	Protestants and Catholics.

I. ENGLAND.

England is divided into Circuits and Counties as under.

CIRCUITS.	COUNTIES.	CHIEF TOWNS
I. Home circuit	Essex	Chelmsford, Colchester, Harwich, Malden, Saffron Walden, Bocking, Braintree, and Stradford.
	Hertford	Hertford, St. Albans, Ware, Hitchin, Baldock, Bishop's Stortford, Berkamstead, Hemstead, and Barnet.
	Kent	Maidstone, Canterbury, Chatham, Rochester, Greenwich, Woolwich, Dover, Deal, Deptford, Feversham, Dartford, Romney, Sandwich, Sheerness, Tunbridge, Margate, Gravesend, and Milton.
	Surry	Southwark, Kingston, Guildford, Croydon, Epsom, Richmond, Wandsworth, Battersea, Putney, Farnham, Godalmin, Bagshot, Egham, and Darking.
	Sussex	Chichester, Lewes, Rye, East Grinstead, Hastings, Horsham, Midhurst, Shoreham, Arundel, Winchelsea, Battel, Petworth, and Brighthelmstone.

CIRCUITS.	COUNTIES.	CHIEF TOWNS.
II. Norfolk circuit....	Bucks	Aylesbury, Buckingham, High Wickham, Great Marlow, Stoney-Stratford, and Newport-Pagnel.
	Bedford	Bedford, Ampthill, Woburn, Dunstable, Luton, Biggleswade
	Huntingdon	Huntingdon, St Ives, Kimbolton, Godmanchester, St. Neot's Ramsey, and Yaxley.
	Cambridge	Cambridge, Ely, Newmarket, Royston, and Wisbeach.
	Suffolk	Ipswich, Bury, Sudbury, Lowestoft, part of Newmarket, Aldborough, Bungey, Southwold, Brandon, Halesworth, Mildenhall, Beccles, Framlingham, Stowmarket. Woodbridge, Lavenham, Hadley, Long-Melford, Stradford, Eastbergholt.
	Norfolk	Norwich, Thetford, Lynn, Yarmouth.
III. Oxford circuit	Oxon	Oxford, Banbury, Chipping-Norton, Henley, Burford, Whitney, Dorchester, Woodstock, and Thame
	Berks	Abingdon, Windsor, Reading, Wallingford, Newbury, Hungerford, Maidenhead, Farringdon, Wantage, and Oakingham.
	Gloucester	Gloucester, Tewkesbury, Cirencester, part of Bristol, Camden Stow, Berkley, Dursley, Lechdale, Tetbury, Sudbury, Wotton, and Marshfield.
	Worcester	Worcester, Eversham, Droitwich, Bewdley, Stourbridge, Kidderminster, and Pershore.
	Monmouth	Monmouth, Chepstow, Abergavenny, Caelton, and Newport.
	Hereford	Hereford, Leominster, Weobly, Ledbury, Kyneton, and Ross.
	Salop............	Shrewsbury, Ludlow, Bridgenorth, Wenlock, Bishop's Castle, Whitchurch, Oswestry, Wem, and Newport.
	Stafford............	Stafford, Litchfield, Newcastle under Line, Wolverhampton, Rugeley, Burton, Uttoxeter, and Stone.
IV. Midland circuit...	Warwick..........	Warwick, Coventry, Birmingham, Stratford upon Avon, Tamworth, Alcester, Nuneaton, and Atherton.
	Leicester	Leicester, Melton-Mowbray, Ashby-de-la-Zouch, Bosworth, and Harborough.

CIRCUITS.	COUNTIES.	CHIEF TOWNS.
IV. Midland circuit continued	Derby	Derby, Chesterfield, Wirkeworth, Ashbourne, Bakewell, Balsover, and Buxton.
	Nottingham	Nottingham, Southwell, Newark, East and West Retford, Mansfield, Tuxford, Worksop, and Blith.
	Lincoln	Lincoln, Stamford, Boston, Grantham, Croyland, Spalding, New Sleaford, Great Grimsby, Gainsborough, Louth, and Horncastle.
	Rutland	Oakham, and Uppingham.
	Northampton	Northampton, Peterborough, Daventry, Higham-Ferrers, Brackley, Oundle, Wellingborough, Thrapston, Towcester, Rockingham, Kettering, and Rothwell.
V. Western circuit	Hants	Winchester, Southampton, Portsmouth, Andover, Basingstoke. Christchurch, Petersfield, Lymington, Ringwood, Rumsey, Alresford, and Newport, Yarmouth and Cowes, in the isle of Wight.
	Wilts	Salisbury, Devizes, Marlborough, Malmsbury, Wilton, Chippenham, Calne, Crickdale, Trowbridge, Bradford, and Worminster.
	Dorset	Dorchester, Lyme, Sherborne, Shaftsbury, Poole, Blandford, Bridport, Weymouth, Melcombe, Wareham, and Winburn.
	Somerset	Bath, Wells, Bristol in port, Taunton, Bridgewater, Ilchester, Minehead, Milbourn-port, Glastonbury, Wellington, Dulverton, Dunster, Watchet, Yeovil, Somerton, Axbridge, Chard, Bruton, Shepton-Mallet, Croscomb, and Froome.
	Devon	Exeter, Plymouth, Barnstable, Biddeford. Tiverton, Honiton, Dartmouth, Tavistock, Topsham, Okehampton, Ashburton, Crediton, Moulton, Torrington, Totness, Axminster, Plympton, and Ilfracomb.
	Cornwall	Launceston, Falmouth, Truro, Saltash, Bodmyn, St. Ives, Padstow, Tregony, Fowey, Penryn, Kellington, Leskeard, Lestwithiel, Helston, Penzance, and Redruth.
VI. Northern circuit	York	York, Leeds, Wakefield, Halifax, Rippon, Pontefract, Hull, Richmond, Scarborough, Boroughbridge, Malton, Sheffield, Doncaster, Whitby, Beverley, North-

CIRCUITS.	COUNTIES.	CHIEF TOWNS.
Northern circuit continued.		allerton, Burlington, Knaresborough, Barnesley, Sherbourne, Bradford, Tadcaster, Skipton, Wetherby, Ripley, Heydon, Howden, Thirske, Gisborough, Pickering, and Yarum.
	Durham..........	Durham, Stockton, Sunderland, Stanhope, Barnard-Castle, Darlington, Hartlepool, and Awkland.
	Northumberland ..	Newcastle, Tinmouth, North Shields, Morpeth, Alnwick, and Hexham.
	Lancaster.........	Lancaster, Manchester, Preston, Liverpool, Wigan, Rochdale, Warrington, Bury, Ormskirk, Hawkshead, and Newton.
	Westmoreland.....	Appleby, Kendal, Lonsdale, Ambleside, Oaton, Kirby-Stephen, Burton, and Milthorpe.
	Cumberland.......	Carlisle, Penrith, Cockermouth, Whitehaven, Ravenglass, Egremont, Keswick, Workington, and Jerby.
Counties exclusive of the circuits.	Middlesex..........	London, first meridian, North Lat. 51° 30′ Westminster, Uxbridge, Brentford, Chelsea, Highgate, Hampstead, Kensington, Hackney, and Hampton Court.
	Cheshire	Chester, Nantwich, Macclesfield, Malpas, Northwich, Middlewich, Sandbach, Congleton, Knotsford, Frodisham, and Haulton.

CIRCUITS IN WALES.

North-east circuit.	Flint	Flint, St. Asaph, and Holywell.
	Denbigh..........	Denbigh, Wrexham, and Ruthen.
	Montgomery	Montgomery, Llanvylin, and Welshpool.
North-west circuit.	Anglesey..........	Beaumaris, Holyhead, and Newburgh.
	Caernarvon........	Bangor, Conway, Caernarvon, and Pullhilly.
	Merioneth	Dolgelly, Bala, and Haleigh.
South-east circuit.	Radnor............	Radnor, Prestean, and Knighton.
	Brecon............	Brecknock, Built, and Hay.
	Glamorgan........	Llandaff, Cardiff, Cowbridge, Neath, and Swansey.

South-west circuit.	Pembroke	St. David's, Haverfordwest, Pembroke, Tenby, Fiscard, and Milfordhaven.
	Cardigan	Cardigan, Aberistwith, and Llanbadarnvawer.
	Caermarthen	Caermarthen, Kidwelly, Llanimdovery, Landilobawr, Laugharn, and Lanelthy.

III. SCOTLAND.

SHIRES.	SHERIFFDOMS AND OTHER SUBDIVISIONS.	CHIEF TOWNS.
1 Edinburgh	Mid Lothian	Edinburgh, W. lon. 3°; N. lat 56°. Mussleburgh, Leith, and Dalkeith.
2 Haddington	East Lothian	Dunbar, Haddington, and North Berwick.
3 Merse, antiently Berwick	The Merches, and Lauderdale	Dunsee and Lauder.
4 Roxburgh	Tiviotdale, Lidsdale, Eskdale, Eusdale	Jedburgh, Kelsoe, and Melross,
5 Selkirk	Ettrick Forest	Selkirk.
6 Peebles	Tweedale	Peebles
7 Lanerk	Clydesdale	Glasgow, W. lon. 4° 5′; N. lat. 55° 52′; Hamilton, Lanerk, and Rutherglen.
8 Dumfries	Nithsdale, Anandale	Dumfrees, Annan.
9 Wigtown	Galloway, West part	Wigtown, Stranraer, and Whitehorn.
10 Kircudbright	Galloway, East part	Kircudbright.
11 Air	Kyle, Carrick, and Cunningham	Air, Kilmarnock, Irwin, Maybole, Stewarton, and Salcots.
12 Dumbarton	Lenox	Dumbarton.
13 Bute and 14 Caithness	Bute, Arran, and Caithness	Rothsay. Wick, North lat. 58° 40′; and Thurso
15 Renfrew	Renfrew	Renfrew, Paisley, Greenock, and Port Glasgow.
16 Stirling	Stirling	Stirling and Falkirk
17 Linlithgow	West Lothian	Linlithgow, Burroughstonness, and Queen's-ferry.

SHIRES.	SHERIFFDOMS AND OTHER SUBDIVISIONS.	CHIEF TOWNS.
18 Argyle	Argyle, Cowal, Knapdale, Kintire, and Lorn, with part of the Western Isles, particularly Ila, Jura, Mull, Wist, Teri, Col, and Lismore	Inverary, Dunstuffnage, Killonner, and Cambeltown.
19 Perth	Perth, Athol, Gowry, Broadalbin, Monteith, Strathern, Stormont, Glenshield, and Raynock	Perth, Scone, Dumblane, Blair, and Dunkeld.
20 Kincardin	Merns	Bervie, Stonhive, and Kincardin.
21 Aberdeen	Mar, Buchan, Garioch, and Strathbogie	Old Aberdeen, west lon. 1° 40, north lat. 57° 22', New Aberdeen, Frasersburgh, Peterhead, Kintore, Strathbogie, Inverary, and Old Meldrum.
22 Inverness	Aird, Strathglass, Sky, Harris, Badenock, Lochabar, and Glenmorison	Inverness, Iverlochy, Fort Augustus, Bolieau.
23 Nairne and 24 Cromartie	Western part of Murray and Cromartie	Nairne, Cromartie.
25 Fife	Fife	St. Andrew's, Cowper, Falkland, Kirkaldy, Innerkythen, Ely, Burnt Island, Dumferline, Dysart, Anstruther, and Aberdour.
26 Forfar	Forfar, Angus	Montrose, Forfar, Dundee, Arbroth, and Brechine.
27 Bamff	Bamff, Sirathdovern, Boyne, Euzy, Balveny, Strathawin, and part of Buchan.	Bamff and Cullen.
28 Sutherland	Strathnaver and Sutherland	Strathey and Dornoch.
29 Clacmannan and 30 Kinross	Fife part	Culross, Clacmannan, Alloa, and Kinross.
31 Ross	Easter and Wester Ross, Isles of Lewis, Lochbroom, Lochcarren, Ardmeanach, Redcastle, Ferrintosh, Strathpeffer, and Ferrindonald	Taine, Dingwall, Fortross, Rosemarkie, and New Kelso.
32 Elgin	Murray and Strathspey	Elgin and Forres.
33 Orkney	Isles of Orkney and Shetland	Kirkwall, west lon. 3°, north lat. 59° 45' Skalloway, near the meridian of London, north lat. 61°.

IV. IRELAND.

	COUNTIES.	CHIEF TOWNS.
Leinster, 12 counties	Dublin	Dublin
	Louth	Drogheda
	Wicklow	Wicklow
	Wexford	Wexford
	Longford	Longford
	East Meath	Trim
	West Meath	Mullinger
	King's County	Philipstown
	Queen's County	Maryborough
	Kilkenny	Kilkenny
	Kildare	Naas and Athy
	Carlow	Carlow
Ulster, 9 counties	Down	Down Patrick
	Armagh	Armagh
	Monaghan	Monaghan
	Cavan	Cavan
	Antrim	Carrickfergus
	Londonderry	Derry
	Tyrone	Omagh
	Fermanagh	Enniskillen
	Donegall	Lifford
Connaught, 5 counties	Leitrim	Carrick on Shannon
	Roscommon	Roscommon
	Mayo	Ballinrobe and Castlebar
	Sligo	Sligo
	Galway	Galway
Munster, 6 counties	Clare	Ennis
	Cork	Cork
	Kerry	Tralee
	Limerick	Limerick
	Tipperary	Clonmel
	Waterford	Waterford

V. DETACHED ISLANDS.

Man, in the Irish sea.
Scilly, in St. George's channel.
Jersey, Guernsey, Alderney, Sark, and the Caskets, in the English channel.

HAVING already made some general observations on Europe, Asia, Africa, and America, it becomes necessary to select some part of the globe at which to begin our description of kingdoms and states. Here there is no need that we should be long in determining our choice. Britain, as our native country, has the best claim to precedence, and well supports this claim, by the eminent rank among the nations which she holds, in the excellency of her constitution and laws, the extent of her learning, and the influence of moral and religious principle on the minds of her inhabitants.

The British islands, which are subjects of this book, were all antiently denominated Britain; this island being called Albion, and Ireland Hibernia. The origin of these names has been much disputed, and were it known, would probably afford but a small share of entertainment.

As Ireland is an island perfectly distinct from Great Britain, and for many ages had no important connection with it, we shall not attempt its description till we draw near the time of its reduction; but as Scotland, Wales, and England are less determinately separated by nature, and have been always affected by the circumstances in which each other were placed, it is intended to employ this chapter in making such observations on the soil, air, and productions of their different parts, as may cast some light on the original state of the island. Britain is situated between the 50th and 60th degrees of north latitude, and between the third degree of east and the sixth of west longitude. It has on the north, the Northern ocean; on the east, the German ocean; on the south-east, the straits of Dover; and on the south, the English channel; on the west, the Atlantic and the Irish sea. Our description shall commence at the south-west extremity of its shores.

CORNWALL.

As Cornwall is surrounded by the sea on all sides, except the east, its climate is somewhat different from that of the other parts of Britain. The reasons of this difference will be easily understood, from what is observed concerning the climate of America.

The summers in Cornwall are less hot, and the winters less cold, than in other parts of England, and the spring and harvest are observed to be more backward. High and sudden winds are also more common in this than in other counties of England. The county is rocky and mountainous; but the mountains are rich in metals, especially tin and copper. The valleys are very pleasant and fertile, yielding great plenty of corn and pasture. The lands are manured and fertilized with sea weed, and a kind of sand, formed of particles of broken shells, as they are dashed against each other by the sea. Cattle of all sorts are smaller here than in the other counties of England; and the wool of the sheep, which are mostly without horns, is very fine, and the flesh, both of them and the black cattle, is very delicate. The county is well supplied with fish from the sea, and the many rivers with which it is watered. The most noted of the sea fish is the pilchard; of which prodigious quantities are caught from July to November, and exported to different parts, especially to Spain. It is said, that a million have been sometimes taken

at a single draught. The natives are remarkable for their strength and activity, as well as their dexterity in wrestling, in which exercise the Cornish hug is highly extolled. This county abounds in mines of different metals, and semi metals, but the principal produce is tin.

DEVONSHIRE.

The soil of Devonshire is various; in the western parts of the county it is coarse and moorish, bad for sheep, but proper for black cattle. In the northern parts, the dry soil and downs are well adapted to sheep, with numerous flocks of which they are well covered. Tolerable crops of corn are also produced here, when the land is well manured. The soil of the rest of the county is rich and fertile, both in corn and pasture, yielding also in some places plenty of marl for manuring it. In other places the inhabitants pare off and burn the surface, making use of the ashes as a manure. Dr. Campbell stiles it a rich and pleasant county; as, in different parts, it abounds with all sorts of grain, produces abundance of fruit, has mines of lead, iron, and silver, in which it formerly exceeded Cornwall, though now it is greatly inferior. On the coast also, they have herring and pilchard fisheries.

DORSETSHIRE.

The county of Dorsetshire enjoys a mild, pleasant and wholesome air, and a deep, rich, and fertile soil, finely diversified; towards the north it is level, under the highlands that divide it from Somersetshire, where there are fine arable grounds, that will yield large crops of different kinds of grain. But on the south, from the borders of Hampshire, by the sea-coast, for an extent of almost 20 miles in length, and in some places four or five in breadth, it is an heathy common, which renders this county less populous than it otherwise would be. From east to west runs a ridge of hills, called the Downs, abounding with sweet and short herbage, which nourishes a vast number of sheep, equally esteemed for their flesh and flavour. The county is also very plentifully watered, and in all respects well suited for pleasure and profit. This county yields many and very valuable commodities. The quarries in Purbeck and Portland supply stones of different qualities, suited to various uses, and in prodigious quantities, together with some very rich and beautiful marble. The best tobacco-pipe clay in England is also found in this county. Madder, hemp, and flax, also thrive in many places, grains of all sorts, &c.

SOMERSETSHIRE.

The air of Somersetshire is very mild and wholesome, especially that of the hilly part. The soil in general is exceeding rich, so that single acres very commonly produce forty or fifty bushels of wheat, and there have been instances of some producing sixty of barley. As there is very fine pasture both for sheep and black cattle, it abounds in both, which

are as large as those of Lincolnshire, and their flesh of a finer grain. In consequence of this abundance of black cattle, great quantities of cheese are made in it, in which that of Cheldar is thought equal to Parmesan. In the hilly parts are found coal, lead, copper, and lapis calaminaris. Wood thrives in it as well as in any county of the kingdom. It abounds also in peas, beans, beer, cyder, fruit, wild fowl, and salmon; and its mineral waters are celebrated all over the world.

Besides small streams, it is well watered and supplied with fish, by the rivers Severn, Avon, Parrel, Ax, and Froome. Its greatest hills are Mendip, Pauldon, and Quantock, of which the first abounds with coal, lead, &c. The rivers Severn and Parrel breed very fine salmon.

GLOUCESTERSHIRE.

The air of Gloucestershire is very wholesome, but the face of it is very different in different parts: for the eastern part is hilly, and is called Cotteswold; the western woody, and called the forest of Dean; and the rest is a fruitful valley, through which runs the river Severn. This river is in some places between two and three miles broad; and its course through the country, including its windings, is not less than 70 miles. The tide of flood, called the Boar, rises very high, and is very impetuous. It is remarkable, that the greatest tides are one year at the full moon, and the other at the new, one year the night tides, and the other the day. The soil is in general very fertile, though pretty much diversified, yielding plenty of corn, pasture, fruit, and wood. In the hilly part of the county, or Cotteswold, the air is sharper than in the lowlands, and the soil, though not so fit for grain, produces excellent pasture for sheep, so that of the 400,000 which are computed to be kept in the county, the greater part are fed here. The wool of these sheep is exceeding fine.

In the vale or lowest part of the county, through which the Severn passes, the air and soil are very different from those of Cotteswold, for the former is much warmer, and the latter richer, yielding the most luxuriant pastures; in consequence of which numerous herds of black cattle are kept, and great quantities of that excellent cheese, for which it is so much celebrated, made in it. The remaining part of the county, called the forest of Dean, was formerly almost entirely over-run with wood, and extended 26 miles in length and 10 in breadth. It was then a nest of robbers, especially towards the Severn; but now it contains many towns and villages, consisting chiefly of miners employed in the coal pits, or in digging for, or in forging iron ore, with both which the forest abounds. This forest was antiently, and still is, noted for its oaks.

WILTSHIRE.

The air of Wiltshire is very healthy, not only in the more low and level parts, but also on the hills. The soil of the vales is very rich, and produces corn and grass in great plenty. The beautiful downs in the south yield the finest pasture for sheep, with which they are overspread. The greatest disadvantage the county labours under is want of

fuel, as there are no coal-pits, and but little wood. Besides a number of lesser streams, it is watered by the rivers Isis, Kennet, Upper and Lower Avon, Wilby, Burne, and Nadder, which are well stored with fish.

HAMPSHIRE

The air of Hampshire is very pure and pleasant, especially upon the downs, on which vast flocks of sheep are kept and bred. In the champaign part of the country, where it is free of wood, the soil is very fertile, producing all kinds of grain. The country is extremely well wooded and watered; for besides many woods on private estates, in which there are vast quantities of well-grown timber, there is the New forest, of great extent, belonging to the crown, well stored with venerable oaks. In these woods and forests, great numbers of hogs run at large, and feed on acorns; and hence it is that the Hampshire bacon so far excels that of most other counties. The rivers are the Avon, Anton, Arle, Test, Stawre, and Itchin; besides several smaller streams, all abounding in fish, especially trout. As its sea-coast is of considerable extent, it possesses many good ports and harbours, and is well supplied with salt-water fish. Much honey is produced in the county, and a great deal of mead and metheglin made. Here is also plenty of game, and on the downs is most delightful hunting.

THE ISLE OF WIGHT.

The Isle of Wight is an island lying on the south coast of Hampshire, from which it is separated by a narrow channel. It is about 21 miles in length and 13 in breadth. It is nearly divided into equal parts by the river Mede or Cowes, which, rising in the southern angle, enters at the northern into the channel, opposite to the mouth of Southampton bay. The south coast is edged with very steep cliffs of chalk and freestone, hollowed into caverns in various parts. The west side is formed with ridges of rock, of which the most remarkable are those called, from their sharp extremities, the Needles. Between the island and the main are various sand banks, especially off the eastern part, where is the safe road of St. Helens.

Across the island, from east to west, runs a ridge of hills, forming a tract of very fine downs, with a chalky or marly soil, which feed a great number of fine fleeced sheep. Rabbits are also very plentiful here. In the north of this ridge the land is chiefly pasture; to the south of it is a rich arable country, producing great crops of corn. The variety of prospects which this island affords, its mild air, and the neat manner in which it is laid out, render it very delightful. Among its products are to be reckoned a pure white pipe-clay, and a fine white crystaline sand.

SURRY.

The air of Surry, towards the middle, which consists mostly of hills and heath, is sharp, but pure and wholesome. About the skirts, where it is more level, and the soil richer,

the air is milder but also salubrious. In the middle parts, the soil is barren enough in general; but towards the extremities, and where the country is open and champaign, it is fruitful in grass and corn, particularly on the south side, in Houndsdale, in which meadows, woods, and corn-fields, are agreeably intermixed. The soil is also very fertile along the Thames, and especially towards London, where it greatly contributes to maintain plenty in the London markets. It has several rivers abounding with fish, the chief of which are the Wye, the Mole, and the Wandle.

SUSSEX.

Sussex has few good ports, though it lies along the channel for 65 miles, which is its greatest length, the coast being encumbered in many places with rocks; and where it is more open, such quantities of sand are thrown upon it by the south-west winds, and the harbours so choked up, that they will not admit of vessels of any great draught or burthen. The county is well watered by the rivers Arun, Adar, Ouse, Bother, Cuchmeer, Ashbourn, and Aston, by which it is well supplied with fish, as well as from the sea. Hence different places of the county are formed for different sorts of fish, as the Arun for mullets, which enter it from the sea in summer in shoals, and by feeding upon a particular kind of of herb, become extremely delicious, Chichester for lobsters, Selsey for cockles, Amberley for trout, Pulborough for eels, Rye for herrings, and the county in general for carp. It is remarkable that all the rivers above-mentioned rise and fall into the sea within the county.

The air as well as the soil is different in different parts of the county. Upon the coast the air is aguish, upon the hills and downs pleasant and wholesome; but somewhat moist and foggy in the valleys, the soil being deep and rich, and the vegetation in summer very vigorous. The downs in some places are very fertile in corn and grass, and in others they feed great flocks of sheep, whose flesh and wool are very fine, but of the latter no inconsiderable quantity is clandestinely exported to France. In the weald and in the valleys the roads are very deep, especially in winter. In the north quarter are many woods, and some forests in other places; whence the king's yards are supplied with the largest and best timber in England, besides what is made into charcoal and consumed in the iron works; for on the east side is plenty of iron ore, with furnaces, forges, and mills for manufacturing of it. The gunpowder of this county is said to excel that of any other. Those delicious birds, called wheatears, are bred in this shire; they are no bigger than a lark, but almost an entire lump of fat. That part now called the Wild or Weald of Sussex, was antiently a mere desert, for hogs and deer, of great extent, taking in a part of Kent and Surry.

KENT.

The climate of Kent varies according to the situation of places. In the low flat lands, and especially in the marshes, the air is heavy, moist, and unhealthy; and yet not to such a degree as has been sometimes represented, for, with a little care and caution,

strangers as well as natives quickly reconcile their constitution to the temperature even of those parts, and live in them without much inconveniency or apparent danger. But in reference to the rest of the county, the air is as thin, pure, and wholesome, as in any part of Britain.

There is no region more happily or more beautifully diversified in regard to soil, so that every kind thereof is to be met with somewhere or other within its bounds; and in no shire are any of those soils more fertile than they are in this; the Weald yields variety of fine timbers, particularly of chesnuts; the middle part has very rich arable lands, annually bearing every species of grain in immense plenty, and those excellent in their several sorts; there are also many beautiful orchards, which produce a variety of fine fruits, and more especially apples and cherries, which were introduced here from Flanders, by one Richard Harris, who was the king's fruiterer in the reign of Henry VIII. The flat country is renowned for its meadows; and Rumney Marsh has hardly its equal.

We may, from this concise description, very easily collect, that the natural productions of Kent are numerous, and of great value. In the bowels of the earth they find, in several places, a rough, hard, serviceable stone, for paving, which turns to some advantage, but not so much as their exquisite fuller's earth, rich marl, and fine chalk, which are there in abundance. If we except iron ore indeed they have no mines; but there are prodigious heaps of copperas stones thrown on the coast. The isle of Sheppey and all the adjacent shore, as far as Raculver, is justly famous for its wheat. Thanet is in no less credit for its barley, or rather was so; for now it produces, through the painful industry, and skilful husbandry of its inhabitants, copious crops of good wheat, as well as barley.

Horses, black cattle, and sheep, they have in great numbers, and remarkable in point of size: and hop grounds in all parts of the county, which turn to very considerable account; to which we may add weld, or, as some call it, dyer's woad, which is a very profitable commodity, and of which there grows much in the neighbourhood of Canterbury; also madder, which is, or has been, occasionally cultivated. The river and seacoast abounds with fish of different descriptions; the excellency of its oysters on the eastern shore is celebrated by the Roman poets.

MIDDLESEX.

The air of Middlesex is very pleasant and healthy, to which a fine gravelly soil does not a little contribute: the natural productions are cattle, corn, and fruit.

HERTFORDSHIRE.

The soil of Hertford in general, especially in the Chiltern and southern parts, is but very indifferent, and much inferior to that of the neighbouring counties, yet the air is much superior.

ESSEX.

The air of Essex in the inland part is healthy; but in the marshes, near the sea, it produces agues, particularly in the part called the Hundreds. However, the fertility of the unwholesome part is very great, and even the higher grounds of this county are very fruitful. About Saffron Walden, the earth, after bearing saffron three years, it is said, will produce good barley, for 18 years successively, without any manure. Its produce, which is very plentiful, consists of corn, most excellent saffron, cattle, fowl, fish, and particularly oysters.

SUFFOLK.

The air of Suffolk is reckoned as wholesome and pleasant as any in the kingdom, nor is it otherwise upon the sea-coast, which is dry and sandy, and free from salt marshes. The soil, except to the west and upon the sea-coast, is very rich, being a compound of clay and marl: towards the sea there are large heaths and tracts of sand; but these produce hemp, rye, and pease, and feed great flocks of sheep. About Newmarket the soil is much the same; but in high Suffolk, or the woodlands, besides wood, there are very rich pastures, where abundance of cattle are fed. In other parts of the county, as about Bury, there is plenty of corn.

NORFOLK.

In Norfolk the air differs in different parts of the county, according to the soil, which in some places is marshy, and there the air is foggy and unwholesome; in others it is clayey and chalky, poor, lean, and sandy, and there the air is good. The county is almost all champaign, except in some places, where rise gentle hills. The marsh lands yield rich pasture for cattle, the clay grounds pease, rye, and barley; and its sandy heaths feed vast flocks of large sheep, of which some villages are said to keep 4000 or 5000, the heaths abound also in rabbits, of a silver grey colour. In many other parts the soil is good, and produces abundance of wheat, as well as other grain. Great quantities of mackerel and herring are caught upon the coasts of this county, the former in the spring, and the latter in September; especially at Yarmouth, where they are cured in a particular manner, and to great perfection. Wood and honey were formerly plentiful in this county; and on the coast jet and ambergris are sometimes found.

CAMBRIDGESHIRE.

The only rivers of Cambridgeshire are the Cam, the Nene, and the Ouse. A considerable tract of land in this county is distinguished by the name of the Isle of Ely. It consists of fenny ground, divided by innumerable channels and drains; and is part of a very spacious level, containing 300,000 acres of land, extending into Norfolk, Suffolk,

Huntingdonshire, and Lincolnshire. The Isle of Ely is the north division of the county, and extends south almost as far as Cambridge. The whole level, of which this is part, is bounded on one side by the sea, and on the others by upland; which, taken together, form a rude kind of semi-circle, resembling a horse-shoe. The air is very different in different parts of the county. In the fens it is moist and foggy, and therefore not so wholesome; but in the south and east parts it is very good, these being much drier than the other; but both, by late improvement, have been rendered very fruitful, the former by draining, and the latter by cinquefoil; so that it produces plenty of corn, especially barley, saffron, and hemp, and affords the richest pastures. The rivers abound with fish, and the fens with wild-fowl. As the above tract appears to have been dry land formerly, the great change it has undergone must have been owing either to a violent breach and inundation of the sea, or to earthquakes.

HUNTINGDONSHIRE.

Huntingdonshire is a good corn county; and abounds in pastures, especially in the eastern side which is fenny. The next is diversified by rising hills and shady groves, and the river Ouse waters the southern part. The air of this county is in most parts pleasant and wholesome, except among the fens and moors, though they are not so bad as the hundreds of Kent and Essex. The soil is fruitful, and produces great crops of corn, and the hilly parts afford a fat pasture for sheep. They have great numbers of cattle; and plenty of water-fowl, fish, and turf for firing; which last is of great service to the inhabitants, there being but little wood.

BEDFORDSHIRE.

The principal river in Bedfordshire is the Ouse, which is navigable to Bedford, and divides the county into two parts, of which that to the south is the most considerable. In its course, which is very meandering, it receives several small streams; the principal one is the Ivel, which takes its rise in the southern part of the county. The air is healthy, and the soil in general a deep clay. The north side of the Ouse is fruitful and woody, but the south side is less fertile; yet producing great quantity of wheat and barley, excellent in their kind, and woad for dyers. The soil yields plenty of fullers-earth.

BUCKINGHAMSHIRE.

The rivers in Buckinghamshire are the Thames, Ouse, Coln, Wicham, Amersham, Isa, Tame, and Loddon: its chief produce is corn, fine wool, and breeding rams. The most noted places are the Chiltern hills, vale of Aylesbury, Bernwood forest, Wooburn heath, and 15 parks. The air is generally good, and the soil mostly chalk or marle.

BERKSHIRE.

The principal river in Berkshire is the Thames. It also has the Kennet, great part of

which is navigable; the Loddon, the Ocke, and the Lambourne, a small stream, which, contrary to all other rivers, is highest in summer, and shrinks gradually as winter approaches. The air of this county is healthy, even in the vales; and though the soil is not the most fertile, yet it is remarkably pleasant. It is well stored with timber, particularly oak and beech; and produces great plenty of wheat and barley.

OXFORDSHIRE.

The air of Oxfordshire is sweet and pleasant, and the soil rich and fertile; the lower parts consist of meadows and corn-fields, and the higher were covered with woods till the civil wars, in which they were so entirely destroyed, that wood is now extremely scarce and dear, except in what is called the Chilters, and so is coal, of consequence fuel bears an exorbitant price. The county is extremely well watered; for, besides the Isis, Tame, Cherwell, Evenlace, and Windrush, there is a great number of lesser rivers and brooks.

NORTHAMPTONSHIRE.

As the county of Northamptonshire is dry, well-cultivated, free from marshes, except the fens about Peterborough, in the centre of the kingdom, and of course at a distance from the sea, it enjoys a very pure and wholesome air. In consequence of this it is very populous, and so full of towns and churches, that 30 spires or steeples may be seen in many places at one view; and even in the fens, the inhabitants seem to enjoy a good state of health and to be little affected by the water, which frequently overflows their grounds, especially in winter, but is never suffered to remain long upon it. Its soil is exceeding fertile, both in corn and pasturage; but it labours under a scarcity of fuel, as it doth not produce much wood, and by lying at a distance from the sea, cannot be easily supplied with coal. Its commodities, besides corn, are sheep, wool, black cattle, and saltpetre; and its manufactures are serges, tammies, shalloons, boots, and shoes. Besides many lesser brooks and streams, it is well watered by the rivers Nen, Welland, Ouse, and Leam; the three first of which are large, and for the most part navigable.

WARWICKSHIRE.

Warwickshire has a pleasant air and fertile soil, which varies in different parts of the county. It produces, in considerable abundance, corn, pasturage, and coals.

WORCESTERSHIRE.

Worcestershire being an inland county, well cultivated, and free from lakes, marshes, or stagnated waters, the air is very sweet and wholesome all over it. The soil in general is very rich, producing corn, fruit, especially pears, (of which they make a great deal of perry,) hops, and pasture; the hills are covered with sheep, and the meadows with cattle; hence they have wool cloth, stuffs, butter, and cheese in abundance. They are also well supplied with fuel, either wood or coal, and salt from their brine-pits and salt-springs. Of the last they have not only enough for themselves, but export large quantities by the

Severn; which noble river, to the great convenience and emolument of the inhabitants, runs from north to south through the very middle of the county, enriching the soil, and yielding it plenty of fish; and an easy, expeditious conveyance of goods to and from it.

HEREFORDSHIRE.

The air of Herefordshire is allowed to be as pleasant, sweet, and wholesome, as that of any other in England, there being nothing either in the soil or situation to render it otherwise. The soil throughout is excellent, and inferior to none, either for grain, fruit, or pasture, supplying the inhabitants plentifully with all the necessaries of life; but that by which it is distinguished from others is its fruit, especially apples, of which it produces such quantities, that the cyder made of them is not only sufficient for their own consumption, though it is their ordinary drink, but also in a great measure for that of London, and other parts; that in particular which is made from the apple called redstreak, is much admired, and has a body almost equal to that of white wine. The county is well supplied with wood and water; for, besides lesser streams, here are the rivers Frome, Lodon, Lug, Wye, Wadel, Arrow, Done, and Minow; the last of which is large, and all of them well stored with fish, particularly the Wye, which breeds salmon.

MONMOUTHSHIRE.

The air of Monmouthshire is temperate and healthy, and the soil fruitful, though mountainous and woody; the hills feed sheep, goats, and horned cattle; and the valleys produce plenty of grass and corn. This county is extremely well watered by several fine rivers; for, besides the Wye, which parts it from Gloucestershire, the Minow, which runs between it and Herefordshire, and the Rumney, which divides it from Glamorganshire, it has, peculiar to itself, the Usk, which enters this county a little above Abergavenny, runs mostly southward, and falls into the Severn by the mouth of the Ebwik; which last river runs from north to south, in the western side of the county. All these rivers, especially the Wye and Usk, abound with fish, particularly salmon and trout.

SHROPSHIRE.

Some parts of Shropshire lie on the north, and some on the south side of the Severn. Besides the Severn, it is also watered by the Temed or Tesideave, as it is called in Welch, which flows from the mountains of Radnorshire; and by the Tern, which has its rise and name from one of those pools called Tearns in Staffordshire. All these abound with fish, especially trouts, pikes, lampreys, graylings, carp, and eels. The air, especially upon the hills, with which the county abounds, is very wholesome. There is as great a diversity of soil, as in most other counties. On the hills, where it proves very good pasture for sheep, and in the low grounds, where it is very rich, along the Severn in parti-

cular, there is plenty of grass for hay and black cattle, with all sorts of corn. No county is better provided with fuel than this, having in it many inexhaustible pits of coal, and also mines of lead and iron. Over most of the coal-pits of this county lies a stratum or layer of blackish porous rock, of which, by grinding and boiling, they make pitch and tar, which are rather better than the common sort for calking ships, as they do not crack, but always continue close and smooth. Quarries of limestone and iron stone are common enough in the county, and the soil in many places is a reddish clay.

STAFFORDSHIRE.

The air of Staffordshire, except in those parts which are called the Moorlands and Woodlands, and about the mines, is good, especially upon the hills, where it is accounted very fine. The soil in the northern mountainous parts is not fertile; but in the middle, where it is watered by the Trent, the third river in England, it is both fruitful and pleasant, being a mixture of arable and meadow grounds. In the south it abounds not only with corn, but with mines of iron and pits of coal. The principal rivers of this county beside the Trent, which runs through the middle of it, and abounds with salmon, are the Dove and Tame, both which are well stored with fish. In this county are also a great many lakes or meres and pools, as they are called, which having streams of water either running into or from them, cannot be supposed to be of any great prejudice to the air; they yield plenty of fish. In divers parts of the county are medicinal waters, impregnated with different sorts of minerals, and consequently of different qualities and virtues.

Great flocks of sheep are bred in this county, especially in the Moorlands or mountains of the northern part of it; but the wool is said to be coarser than that of many other counties. In the low grounds, along the rivers, are rich pastures for black cattle. In the southern or middle parts, not only grain of all kinds, but hemp and flax are raised. This county produces also lead, copper, iron, marble, alabaster, millstones, limestone, brick-earth, fullers-earth, and potters-clay; a sort of red earth, called slip, used in painting vessels; red and yellow ochres, tobacco-pipe-clay, fine stones, iron stones of several sorts, blood stones, found in the brook Tent, which, when wet, will raise red lines like ruddle, quarry stones, and grind-stones. For fuel the county is well supplied with turf, and coal of several sorts, as canal coals, peacock coal, and pit coals. Canal coal emits a light flame, like that of a candle, and is capable of being manufactured into articles of different kinds; peacock coal is so called, because, when turned to the light, it displays all the colours of the peacock's tail, but it is fitter for the forge than the kitchen. Of the pit-coal there is an inexhaustible store: it burns into white ashes, and leaves no such cinders as that of the Newcastle coal

LEICESTERSHIRE

As Leicestershire lies at a great distance from the sea, and is free from bogs and marshes, the air is sweet and wholesome. It is a champaign country in general, and

abundantly fertile in corn and grass, being watered by several rivers, as Soure or Sore, which passes through the middle of it, and abounds in excellent salmon and other fish; the Wreke, Trent, Eye, Sense, Auker, and Avon. These rivers being mostly navigable, greatly facilitate the trade of the county. In some parts there is a great scarcity of fuel, both wood and coal; but in the more hilly parts there is plenty of both, together with great flocks of sheep.

Besides wheat, barley, oats, and pease, it produces the best beans in England. They grow so tall and luxuriant in some places, particularly about Barton-in-the-Beans, that they look, towards the harvest time, like a forest, and the inhabitants eat them, not only when they are green, as in other places, but all the year round; for which reason their neighbours nick-name them bean-bellies. They have plenty of very good wool, of which they not only make great plenty of stockings, but send a great quantity unmanufactured into other parts of England. They make great profit of their corn and pulse; and likewise breed great numbers of coach and dray horses, most of the gentlemen being graziers; and it is not uncommon to rent grass farms, from 500*l.* to 2000*l.* a year.

RUTLANDSHIRE.

Rutlandshire for quality may be compared with any other county; the air being good, and the soil fertile, both for tillage and pastures; and it not only affords plenty of corn, but feeds a great number of horned cattle and sheep. It is well watered with brooks and rivulets; and the principal rivers are the Weland and the Wash.

LINCOLNSHIRE.

The principal rivers of Lincolnshire are the Humber, the Trent, the Witham, the Nenn, the Welland, the Ankham, and the Dun. It is divided into three parts, Lindsey, Kesteven, and Holland; the air of which last is unwholesome and foggy, on account of the fens and large marshes. The soil of the north and west parts is very fertile, and abounds in corn and pastures; the east and south parts are not so proper for corn, but then they supply the inhabitants with fish and fowl in great plenty, particularly ducks and geese.

NOTTINGHAMSHIRE.

No county in England enjoys a pleasanter and healthier air than Nottinghamshire. As for the soil, it differs widely in different parts of the county. Towards the west, where lies the forest of Sherwood, it is sandy, and therefore that part of the county is called by the inhabitants the sands; but the south and east parts, watered by the Trent and the rivulets that fall into it, are clayey, and for that reason are called by the inhabitants the clay. The latter is fruitful both in corn and pasture, but the former produces little besides wood, coal, and some lead.

DERBYSHIRE.

The air of Derbyshire is pleasant and healthful, especially on the east side; but on the west, about the Peak, it is sharper, and more subject to wind and rain. The soil is very different in different parts of the county. In the east and south parts it is very fruitful in all kinds of grain, but in the west, beyond the Derwent, it is barren and mountainous, producing nothing but a little oats. There is, however, plenty of grass in the valleys, which affords pasture to a great number of sheep. This part of the county is called the Peak, from a Saxon word, signifying an eminence. Its mountains are very bleak, high, and barren; but extremely profitable to the inhabitants. They yield great quantities of the best lead, antimony, iron, scythe-stones, grind-stones, marble, alabaster, coarse sort of crystal, azure, spar, and pit-coal.

CHESHIRE.

Both the air and soil of Cheshire are in general good. In many places of the county are peat mosses, in which are often found trunks of fir-trees, sometimes several feet under ground, that are used by the inhabitants both for fuel and candles. Here also are many lakes and pools well stored with fish; besides the rivers Mersee, Weaver, and Dee, which last falls into a creek of the Irish sea near Chester. This county also abounds with wood, but what it is chiefly remarkable for is its cheese, which has a peculiar flavour, generally thought not to be inferior to any in Europe.

LANCASHIRE.

The eastern parts of Lancashire are rocky, and in the northern districts we see many single mountains remarkably high, such as Ingleborough hills and Laudgridge hill. Nor is there any want of wood in this county, either for timber or fuel. Witness Wiersdale forest and Bowland forest to the northward, and Simon's wood in the southern part of Lancashire. This county is well watered with rivers and lakes. Among the lakes or meres of Lancashire, we reckon the Winander mere, and the Kiningstone mere, which, though neither so large nor so well stored with fish, yet affords plenty of excellent char. There was, in the south side of the Ribble, another lake, called Mortons several miles in circumference, which is now drained and converted into pasture ground. In this operation the workmen found a great quantity of fish, together with eight canoes, resembling those of America, supposed to have been used by the ancient British fishermen. Besides these meres or lakes, this county abounds with morasses and marshes, from which the inhabitants dig excellent peet or turf for fuel, as well as marle for manuring the ground, and trunks of old fir trees, supposed to have lain there ever since the general deluge. Some of these are so impregnated with turpentine, that, when divided into splinters, they burn like candles, and are used for that purpose by the common people

There is a great variety of mineral waters in this county, some periodical springs, and one instance of a violent irruption of water at Kirkley in Fourness. The most remarkable chalybeate spaws are those of Latham, Wigan, Stockport, Burnby, Bolton, Plumpton, Middleton, Strangeways, Lancaster, Lanbrick, and Chorley. At Ancliff, in the neighbourhood of Wigan, is a fountain called the Burning Well, from whence a bituminous vapour exhales, which, being set on fire by a candle, burns like brandy, so as to produce a heat that will boil eggs to a hard consistence, while the water itself retains its original coldness. There is at Barton a fountain of salt water, so strongly impregnated with that mineral, as to yield six times as much as can be extracted from the same quantity of sea water. At Rogham, in Fourness, there is a purging saline fountain; and in the neighbourhood of Rassal, where the ground is frequently overflowed by the sea, a stream descends from Hagbur-hills, which, in the space of seven years, is said to convert the marl into a hard free-stone, fit for building.

The air of Lancashire is pure, healthy, and agreeable, except among the fens and on the sea-shore, where the atmosphere is loaded with exhalations, producing malignant and intermitting fevers, scurvy, rheumatism, dropsy, and consumption. The soil is various in different parts of the county; poor and rocky on the hills, fat and fertile in the valleys and champaign country. The colour of the peat is white, grey, or black, according to the nature of the composition, and the degree of putrefaction which the ingredients have undergone.

There is a bituminous earth about Ormskirk, that smells like the oil of amber, and indeed yields an oil of the same nature, both in its scent and its medicinal effects; which moreover reduces raw flesh to the consistence of mummy; this earth burns like a torch, and is used as such by the country people. The metals and minerals of this county consist of lead and copper, antimony, black lead, lapis caliminaris, green vitriol, alum, sulphur, pyrites, free-stone, and pit and canal coal. The level country produces plenty of wheat and barley, and the skirts of the hills yield good harvests of excellent oats; very good hemp is raised in divers parts of the province; and the pasture which grows in the valleys is so peculiarly rich, that the cattle which feed upon it are much larger and fatter than in any other part of England. There is not any other part of the world better supplied than Lancashire with provisions of all kinds, at a reasonable rate, such as beef, veal, mutton, lamb, pork, poultry, and game of all sorts, caught upon the moors, heaths, and commons, in the hilly parts of the shire. Besides the sea-fowl common to the shires of England, such as ducks, castelings, teal, and plover, many uncommon birds are observed on the coast of Lancashire, the sea-crow, variegated with blue and black, the puffin, the cormorant, the curlew, the razor-bill, the copped wren, the redshanks, the swan, the tropic bird, the king-fisher, &c.

YORKSHIRE.

As the soil and face of the county of Yorkshire vary greatly, so does the air. In the hilly parts the air is good, but the soil very indifferent; of the lower parts some are marshy, others drier, and the soil of both rich; but the air of the former is more foggy.

and unhealthy than that of the latter. As to the produce of Yorkshire, it abounds in corn, cattle, horses, lead and iron, wood, lime, liquorice, alum, jet, &c.

DURHAM.

The principal products of Durham are lead, coals, iron, corn, mustard, salt, glass, fine ale, with excellent butter and salmon. The soil is various in the south, but the western parts rocky and moorish.

WESTMORELAND.

The air of Westmoreland is clear, sharp, and salubrious, the natives being seldom troubled with diseases, and generally living to old age. The soil is various, that on the mountains is very barren, while that in the valleys is fertile, producing good corn and grass, especially in the meadows near the rivers. In the hilly parts, on the western borders, it is generally believed there are vast quantities of copper ore and veins of gold; some mines of copper are worked, but most of the ore lies so deep, that it will not answer the expence. This county yields the finest slate, and abundance of excellent hams are cured here. The principal rivers are the Eden, the Lone, and the Ken. It has also several very fine lakes, the principal of which is Winandere mere, or Winder mere water. In the forest of Martindale, to the south of Ullswater, the breed of red deer still exists in a wild state.

CUMBERLAND.

Cumberland is well watered with rivers, lakes, and fountains, but none of its streams are navigable. In some places there are very high mountains; the air is keen and piercing on these mountains towards the north; and the climate is moist, as in all hilly countries. The soil varies with the face of the country; being barren on the moors and mountains, but fertile in the valleys, and level grounds bordering on the sea. In general the eastern parts of the shire are barren and desolate, yet even the least fertile parts are rich in metals and minerals. The mountains of Copland abound with copper; veins of the same metal, with a mixture of gold and silver, were found in the reign of queen Elizabeth, among the fells of Derwent; and royal mines were formerly wrought at Keswick. The county produces great quantities of coal, some lead, abundance of mineral earth, called black lead, several mines of lapis calaminaris, and an inconsiderable pearl fishery on the coast, near Ravenglass.

NORTHUMBERLAND.

The face of the county of Northumberland, especially towards the west is roughened with large mountains, the most remarkable of which are the Cheviot hills, and the high ridge called Ridesdale; but the lands are level towards the sea-side, and the bor-

ders of Durham. The climate, like that of every other mountainous country, in the neighbourhood of the sea, is moist and disagreeable, the air, however, is pure and healthy, as being well ventilated by breezes and strong gales of wind; and in winter mitigated by the warm vapours from the two seas, the Irish and the German ocean, between which it is situated. The soil varies in different parts of the county. Among the hills it is barren; though it affords good pasture for sheep, which cover those mountains. The low country, when properly cultivated, produces plenty of wheat, and all sorts of grain; and great part of it is laid out in meadow lands and rich enclosures. Northumberland is well watered with many rivers, rivulets, and fountains; its greatest rivers are the Tweed and the Tyne. The Tyne is composed of two streams, called south and north Tyne, the first rises on the verge of Cumberland, near Alston moor, enters Northumberland, running north to Holtwesel, then bends easterly, and receiving the two small rivers East and West Alne; unites above Hexham with the other branch, taking its rise at a mountain called Fane head, in the western part of the county, thence called Tinedale; is swelled in its course by the little river Spele; joins the Read near Billingham, and running in a direct line to the south-east, is united with the Southern Tyne, forming a large river that washes Newcastle, and falls into the German ocean near Tinmouth. In all probability, the mountains of Northumberland contain lead ore, and other mineralized metals in their bowels, as they in all respects resemble those parts of Wales and Scotland, where lead mines have been found and prosecuted. Perhaps the inhabitants have been diverted from enquiries of this nature, by the certain profits and constant employment they enjoy in working the coal pits, with which this county abounds. The city of London, and indeed the greatest part of England is supplied with fuel from these stores of Northumberland, which are indeed inexhaustible, enrich the proprietors, and employ an incredible number of hands and shipping. About 658,858 chaldrons are annually shipped for London. There are no natural woods of any consequence in this county, but many plantations belonging to the seats of noblemen and gentlemen, of which here is a great number. As for pot herbs, roots, and every article of the kitchen garden and orchard, they are here raised in great plenty by the usual means of cultivation; as are also the fruits of more delicate flavour, such as the apricot, peach, and nectarine. The spontaneous fruits it produces in common with other parts of Great Britain, are the crab apple, the sloe or bullace, the hazle nut, the acorn, hips, and haws, with the berries of the bramble, the juniper, wood strawberries, cranberries, and bilberries.

* Northumberland raises a great number of excellent horses and black cattle, and affords pasture for numerous flocks of sheep; both the cattle and the sheep are of a large breed, but the wool is coarser than that which the more southern counties produce. The hills and mountains abound with a variety of game, such as red deer, foxes, hares, rabbits, heath-cock, growse, partridge, quail, plover, teal, and woodcock; indeed, this is counted one of the best sporting counties in Great Britain. The sea and rivers are well stocked with fish; especially the Tweed, in which a vast number of salmon are caught, and carried to Tinmouth, where being pickled, they are conveyed by sea to London, and sold under the name of Newcastle salmon.

WALES.

WALES is bounded on all sides by the sea and the Severn; except on the east, where it joins the counties of Chester, Salop, Hereford, and Monmouth. Its length, from the southermost part of Glamorganshire to the extremity of Flintshire north, is computed at about 113 miles; and its greatest breadth, from the river Wey east to St. David's in Pembrokeshire west, is nearly of the same dimensions, being about 90 miles. The country, though mountainous, especially in North Wales, is far from barren or unfruitful; the hills, besides the metals and minerals they contain, feeding vast herds of small black cattle, deer, sheep, and goats; and their valleys abounding in corn, as their seas and rivers do in fish. Here are also wood, coal, and turf, for fuel, in abundance.

GLAMORGANSHIRE.

The principal rivers of Glamorganshire are the Rhymny, the Taff, the Ogmore, the Avon, the Cledaugh, and the Tave The air in the south part, towards the sea, is temperate and healthful; but in the northern part, which is mountainous, is cold and piercing, full of thick woods, extremely barren, and thin of inhabitants The mountains, however, serve to feed herds of cattle, and send forth streams, which add greatly to the fertility of the other parts of the county; they have likewise coal and lead ore. The south part is so remarkably fertile, pleasant, and populous, that it is generally styled the garden of Wales. It has many small harbours on the coast, for exporting coals and provisions. Of the former it sends large quantities both to England and Ireland; but of the latter to England almost solely, especially butter.

BRECKNOCKSHIRE.

Brecknockshire is surrounded with hills, which render the air in the valleys pretty temperate The soil on the hills is very stony, but the streams descending from thence into the valleys render them fruitful both in corn and grass. The chief commodities here are corn, cattle, fish, and otters' fur, besides manufactures of cloth and stockings. The principal rivers are the Usk, the Wye, and the Yrvon.

CAERMARTHENSHIRE.

The air of Caermarthenshire is wholesome, and the soil less rocky and mountainous than most other parts of Wales, and consequently is proportionally more fertile, both in corn and pasture. It has also plenty of wood, and is plentifully supplied with coal and limestone. The most considerable rivers are the Towy, the Cothy, and the Tave;

of which the first abounds with excellent salmon. Near this spot is a fountain which ebbs and flows twice in 24 hours like the sea.

PEMBROKESHIRE.

The air of Pembrokeshire, considering its situation, is good; but is in general better the farther from the sea. As there are but few mountains, the soil is generally fruitful, especially on the sea-coast, nor are its mountains altogether unprofitable, but produce sufficient to maintain great numbers of sheep and goats. Its other commodities are corn, cattle, pit coal, marl, fish, and fowl. Among these last are falcons, called here peregrins. Amongst the birds common here are the migratory sea-birds, that breed in the isle of Ramsey, and the adjoining rocks, called the Bishop and his Clerks. About the beginning of April such flocks of birds of several sorts resort to these rocks, as appear incredible to those who have not seen them; they come to them in the night-time, and also leave them then, for in the evening the rocks may be seen covered with them, and the next morning not one be seen at all: in like manner not a single bird shall appear in the evening, and the next morning the rock shall be covered with them: they also generally make a visit about Christmas, staying a week or longer, and then take their leave till breeding time. Among these birds are the eligug, razor-bill, puffin, and harry-bird. The eligug lays only one egg, which, as well as those of the puffin and razor-bill, is as big as a duck's, but longer, and smaller at one end. She never leaves it till it is hatched, nor then till the young one is able to follow her; and she is all this time fed by the male. This and the razor-bill breed upon the bare rocks, without any kind of nest; the puffin and harry-bird breed in holes, and commonly in the holes of rabbits; but sometimes they dig holes for themselves with their beaks: the harry-birds are never seen on land but when taken. All the four kinds cannot raise themselves to fly away when they are on land, and therefore they creep or waddle to the cliffs, and throwing themselves off, take wing: the eligug is the same bird which they call in Cornwall a kiddaw, and in Yorkshire a scout; the razor-bill is the merre in Cornwall; the puffin is the arctic duck of Clusius; and the harry bird the shirewater of sir Thomas Brown. The inhabitants of this county make a very pleasant durable fire of culm, which is the dust of coal made up into balls with a third part of mud. The county is well watered by the rivers Clethy, Dongledge, Cledhew, and Tene; which last parts it from Cardiganshire.

—There is a division of the county styled Rhos in the Welsh, by which is meant a large green plain. This is inhabited by the descendants of the Flemings, placed there by Henry I. to curb the Welsh, who were never able to expel them, though they have often attempted it. On the coasts of this county, as well as on those of Glamorganshire and the Severn sea, is found a kind of alga or lava, the lactuca marine of Cambden, being a marine plant or weed. It is gathered in spring; of which the inhabitants make a sort of food, called in Welch chavan, and in English black butter. Having washed it clean, they lay it to sweat between two flat stones, then shred it small, and knead it well, like dough for bread, and then make it up into great balls or rolls, which is by some

eat raw, and by others fryed with oatmeal and butter. It is accounted excellent against all distempers of the liver and spleen; and some affirm that they have been relieved by it in the sharpest fits of the stone

CARDIGANSHIRE

The air of Cardiganshire, as in other parts of Wales, varies much with the soil, which in the southern and western parts is more upon a level than this principality generally is, which renders the air mild and temperate. But as the northern and eastern parts are mountainous, they are consequently more barren and bleak. However, there are cattle bred in all parts, but they have neither wood nor coals of their own for fuel; they have rich lead mines, and fish in plenty, with fowls both wild and tame. The principal rivers are the Teivy, the Ridal, and the Istwith.

RADNORSHIRE.

The air of Radnorshire is in winter cold and piercing; the soil in general is but indifferent; yet some places produce corn, particularly the eastern and southern parts; but in the northern and western, which are mountainous, the land is chiefly stocked with horned cattle, sheep, and goats

MONTGOMERYSHIRE.

The air of Montgomeryshire is pleasant and salubrious, but, this county being extremely mountainous, is not very fertile, except in the valleys, which afford some corn, and plenty of pasture; however the south, south-east, and north-east parts being much more level, are extremely fruitful, especially a pleasant vale, through which the Severn glides in beautiful meanders.

MERIONETHSHIRE

In Merionethshire the air is very sharp in winter, on account of its many high barren mountains; and the soil is as bad as any in Wales, it being very rocky and mountainous. However this county feeds large flocks of sheep, many goats, and large herds of horned cattle, which find pretty good pasture in the valleys. Besides these, among their other commodities may be reckoned Welch cotton, deer, fowl, fish, and especially herring, which are taken on this coast in great plenty.

DENBIGHSHIRE.

The air of Denbighshire is wholesome but sharp, the county being pretty hilly, and the snow lying long on the tops of the mountains. The soil in general is barren: but the vale of Clwyd, so called from its being watered by that river, is a very fertile, plea-

sant spot, of great extent, and well inhabited. The chief commodities are black cattle, sheep, and goats, rye, called here amelcorn, and lead ore

FLINTSHIRE.

The air of Flintshire is cold, but healthful. It is full of hills, intermixed with a few valleys, which are very fruitful, producing some wheat, and plenty of rye. The cows, though very small, yield a great quantity of milk, in proportion to their size, and are excellent beef. The mountains are well stored with lead, coal, and millstones: this county also produces good butter, cheese, and honey; of which last the natives make metheglin, a wholesome liquor, much used in these parts.

CAERNARVONSHIRE

In Caernarvonshire the air is very piercing, owing partly to the snow, that lies seven or eight months of the year upon some of the mountains, which are so high that they are called the British Alps; and partly to the great number of lakes, which are said not to be fewer than 50 or 60. The soil in the valleys, on the side next Ireland, is pretty fertile, especially in barley; great numbers of black cattle, sheep, and goats, are fed on the mountains; and the sea, lakes, and rivers, abound with variety of fish. The highest mountains in the county are those called Snowden hills, and Pen-man-mawr-Snowden hill is generally thought to be the highest mountain in Britain; though some have been of opinion that its height is equalled, or even exceeded, by mountains in the highlands of Scotland.

According to M. Pennant, this mountainous tract yields scarcely any corn. Its produce is cattle and sheep; which, during summer, keep very high in the mountains, followed by their owners, with their families, who reside during that season in havodtys, or "Summer's dairy houses," as the farmers in the Swiss Alps do in their sennes. These houses consist of a long low room, with a hole at one end to let out the smoke from the fire which is made beneath: their furniture is very simple; stones are substituted for stools, and their beds are of hay, ranged along its sides: they manufacture their own clothes, and dye them with mosses collected from the rocks. During summer the men pass their time in tending their herds, or in making hay, &c.; and the women in milking or making butter and cheese. For their own use they milk both ewes and goats, and make cheese of their milk: their diet consists of milk, cheese, and butter, and their ordinary drink is whey: though they have, by way of reserve, a few bottles of very strong beer, which they use as a cordial when sick. They are a people of good understanding, wary, and circumspect; tall, thin, and of strong constitutions. In the winter they descend into the pendref, or "old dwelling," where they pass their time in inactivity.

The view from the highest part of Snowden is very extensive. From it M. Pennant saw the county of Chester, the high hills of Yorkshire, part of the north of England, Scotland, and Ireland; a plain view of the isle of Man, and that of Anglesey, appeared

like a map extended under his feet, with every rivulet visible. Our author took much pains to have this view to advantage; sat up at a farm on the west till about 12, and walked up the whole way. The night was remarkably fine and starry; towards morning the stars faded away, leaving an interval of darkness, which, however, was soon dispelled by the dawn of day; the body of the sun appeared most distinct with the roundness of the moon, before it appeared too brilliant to be looked at: the sea, which bounded the western part of the prospect, appeared gilt with the sun-beams, first in slender streaks, and at last glowed with redness: the prospect was disclosed like the gradual drawing up of a curtain in a theatre, till at last the heat became sufficiently strong to raise mists from the various lakes, which in a slight degree obscured the prospect. The shadow of the mountain extended many miles, and shewed its two headed form, the Wy lofa making one form, and the Criby the other. At this time he counted between 20 and 30 lakes, either in Caernarvon or in Merionethshire. In making another visit, the sky was obscured very soon after he got up; a vast mist involved the whole circuit of the mountain, and the prospect down was horrible. It gave an idea of a number of abysses concealed by a thick smoke, furiously circulating around them. Very often a gust of wind made an opening in the clouds, which gave a fine and distinct vista of lake and valley. Sometimes they opened at one place, at others in many at once, exhibiting a most strange and perplexing sight of water, fields, rocks, and chasms; they then closed again, and every thing was involved in darkness; in a few minutes they would separate again, and repeat the above-mentioned scene with infinite variety. From this prospect our traveller descended with great reluctance; but before he had reached the place where his horses were left, he was overtaken by a thunder-storm. The rolling of the thunder-claps being reiterated by the mountains, was inexpressibly awful; and after he had mounted, he was in great danger of being swept away by the torrents which poured down, in consequence of a very heavy rain. It is very rare, M. Pennant observes, that the traveller gets a proper day to ascend this hill: it indeed often appears clear; but by the evident attraction of the clouds by this lofty mountain, it becomes suddenly and unexpectedly enveloped in mist, when the clouds have just before appeared very high and very remote. At times he observed them lower to half their height; and notwithstanding they have been dispersed to the right and left, yet they have met from both sides, and united to involve the summit in one great obscurity.

The height of Snowden was measured in 1682, by Mr. Caswell, with instruments made by Flamstead; according to his mensuration, the height is 3720 feet; but more modern computations make it only 3568 feet, reckoning from the quay at Caernarvon to the highest rock. The stone that composes this mountain is excessively hard. Large coarse crystals, and frequently cubic pyrites are found in the fissures. An immense quantity of water rushes down the sides of Snowden and the neighbouring mountains, inasmuch that M. Pennant supposes, if collected in one stream, they would exceed the waters of the Thames.

Pen-man-mawr hangs over the sea. There is a road cut out of the rock on the side next the sea, guarded by a wall running along the edge of it on that side; but the tra-

veller is in danger of being crushed by the fall of pieces of the rock from the precipices above. The river Conway, though from the lake out of which it issues to its mouth, is only 12 miles, yet is so deep, in consequence of the many brooks it receives, that it is navigable for ships of good burden for eight miles. Pearls are found in a large black muscle in the river.

THE ISLE OF ANGLESEY.

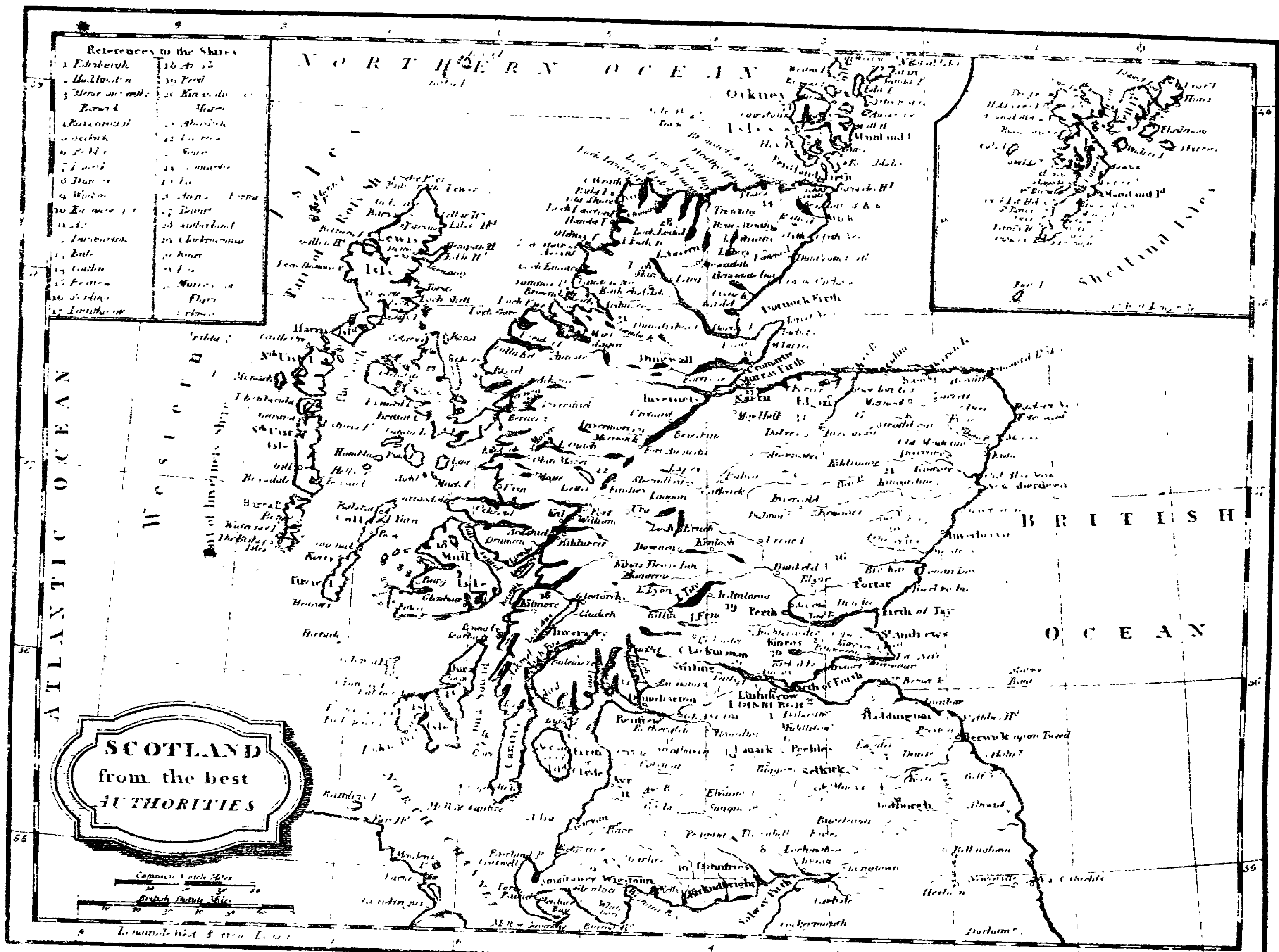
The isle of Anglesey is the most western county in North Wales. It is 24 miles in length, and 18 in breadth. It is separated from Caernarvonshire by a strait called Menai, and in every other side is surrounded by the sea. It is a fertile part, and abounds in corn, cattle, flesh, fish, and fowls.

SCOTLAND.

THE face of Scotland exhibits a very mountainous appearance, especially to the west and northward; but, at the same time, it displays many large and long tracts of plain ground, fit for all the purposes of agriculture. It is divided from east to west by a chain of huge mountains, known by the name of Grant's Bain, or the Grampian Hills. There is another chain, called the Pentland hills, which runs through Lothian, and joins the mountains of Tweedale; a third, called Lammer-muir, rising near the eastern coast, runs westward through the Merse: but besides these there is a vast number of detached hills and mountains, remarkable for their stupendous height and steepness. There is no country in the world better supplied than Scotland with rivers, lakes, rivulets, and fountains. Over and above the principal rivers of Tweed, Forth, Clyde, Tay, and Spey, there is an infinity of smaller streams, that contribute to the beauty, convenience, and advantages of the kingdom.

Tweed takes its rise from the borders of Annandale; serves as a boundary between Scotland and England; and, after a long serpentine course, discharges itself into the sea at Berwick. Forth rises in Monteith, near Callendar, passes by Sterling, and after a course of twenty-five leagues, runs into the arm of the sea called the Frith of Forth, which divides the coast of Lothian from Fife. Clyde takes its rise from Errick hill, in the shire of Lanerk; traverses the shire of Clydesdale, to which it gives name; washes the city of Glasgow; widens in its passage to the castle of Dumbarton, and forms the Frith of Clyde, adjoining to the Irish sea. Tay, the largest river in Scotland, derives its source from Loch-Tay, in Breadalbane; and, after a south-east course, discharges itself into the sea below Dundee. Spay, or Spey, issues from a lake of the same name in Badenoch; and, running a north-easterly course, falls into the German ocean at Speymouth. Some of the fresh-water lakes are beautiful pieces of water, incredibly deep, and surprisingly extended. There are several large forests of fir in Scotland, and a great number of woods; which, however, produce very little timber of any consequence; but the country in general is rather bare of trees; and in many places neither tree, shrub, nor any kind of plantation is to be seen. The case has been otherwise of old; for huge trunks of trees are often dug from under ground in almost every part of the kingdom.

In the north of Scotland, the day at midsummer is lengthened out to 18h. 5m; so that the shortest night does not exceed 5h. 55m.; the night and day in winter are in the same proportion. The air of this kingdom is generally moist and temperate, except upon the tops of high mountains, covered with eternal snow, where it is cold, keen, and piercing. In other parts it is tempered by warm vapours from the sea, which environs it on three sides, and runs far up into the land by friths, inlets, and indentations. This neighbourhood of the sea, and the frequency of hills and mountains, produce a constant undulation in


SCOTLAND
from the best
AUTHORITIES
References to the Shires
NORTHERN OCEAN
ATLANTIC OCEAN
BRITISH OCEAN
Western Isles
Orkney Isles
Shetland Isles
Dingwall
Inverness
Perth
Stirling
Lanark
Peebles
Selkirk
Forfar
Haddington
Berwick upon Tweed
Jedburgh
Wigtoun
Kirkudbright
Dumfries
Solway Firth
Murray Firth
Firth of Tay
Firth of Forth
St Andrews
Kinross
Clackmanan
Linlithgow
EDINBURGH
Dumbarton
Renfrew
Ayr
Inverary
Kilmore
Killin
Elgin
Nairn
Cantire
Mull
Jura Sound
Dornock Firth
Durham

the air, and many hard gales, that purify the climate, which is, for the most part, agreeable and healthy. Scotland affords a great variety of soil in different parts of the country, which, being hilly, is in general well adapted to pasturage; not but that the lowlands are as fertile, and, when properly inclosed and manured, yield as good crops of wheat as any grounds in the island of Great Britain. The water in Scotland is remarkably pure, light, and agreeable to the stomach; but, over and above that which is used for the ordinary purposes of life, here are many medicinal springs of great note.

Scotland abounds with quarries of free-stone easily worked, which enable the people to build elegant houses, both in town and country, at a small expence, especially as they have plenty of lime stone, and labour very cheap. The east, west, and northern parts of the country produce excellent coal; and where this is wanting, the natives burn turf and peat for fuel. Crystals, variegated pebbles, and precious stones, are found in many parts of Scotland; teal, flint, and sea-shells, fuller's earth, potter's clay, and metals in great plenty The country produces iron and copper ore, a prodigious quantity of lead, mixed with a large proportion of silver; and in some places little bits of solid gold are gathered in brooks immediately after torrents.

The lowlands of Scotland, as has been observed, when duly cultivated, yield rich harvests of wheat; and indeed it must be owned that many parts of this kingdom rival the best spots of England in agriculture; but these improvements have not yet advanced into the western and northern extremities of the island, where we see nothing but scanty harvests of oats, rye, and barley. The highlands are so defective even in these, that it is necessary to import supplies of oatmeal from Ireland and Liverpool. This scarcity, however, we must not impute to the barrenness of the soil, so much as to the sloth and poverty of the tenants, oppressed by rapacious landlords, who refuse to grant such leases as would encourage the husbandman to improve his farm, and make himself better acquainted with the science of agriculture. This is perfectly well understood in the Lothians, where we see substantial inclosures, plantations, meadows for hay and pasture, wide extended fields of wheat, the fruits of skill and industry, and meet with farmers who rent lands to the amount of 400*l.* or 500*l* a year. Of plants this country produces an immense variety, growing wild, exclusive of those that are raised by the husbandman and gardener. Their farm grounds are well stocked with wheat, rye, barley, oats, hemp, and flax: their gardens produce great plenty of kitchen roots, salads, and greens; among which last we reckon the colewort, known by the name of Scotch kail: their orchards bear a variety of apples, pears, cherries, plums, strawberries, gooseberries, raspberries, and currants; here also apricots, nectarines, peaches, and sometimes grapes, are brought to maturity. In a word, there is nothing, whether shrub, fruit, or flower, that grows in any part of South Britain, which may not, with a little pains, be brought to the same perfection in the middle of Scotland.

Among the trees and shrubs which are the natural growth of this country, we may reckon the oak, the fir, the birch, the poplar, the alder, willow, elder, hazle, mountain ash, crab-tree, and juniper; which last abounds to such a degree in some parts of the highlands, that in the space of a few miles many tons of the berries might be

yearly gathered; besides these, we find the hawthorn, the sloe, the dog-rose, the furze, broom, fern, and whole tracts of land and mountains covered with strong heath. This affords shelter for the myrtillis, the fruit of which, called bilberries, is here found in great abundance, as well as the brambleberry, cranberry, and wild strawberry. The ash, the elm, the sycamore, lime, and walnut-tree, are chiefly planted about the houses of gentlemen; but even the inclosures of quickset appear naked for want of such hedge-rows as adorn the country of England. Indeed, great part of this kingdom lies naked and exposed like a common; and other parts have no other inclosure than a paltry wall, huddled up of loose stones, which yields a bleak and mean prospect, and serves no other purpose than that of keeping out the cattle. All the sea-coast is covered with alga marina, dulse, and other marine plants.

The Highlands are well stocked with red deer, and the smaller species called the roe-buck, as well as with hares, rabbits, foxes, wild cats, and badgers; and they abound with all sorts of game. The rivers and lakes pour forth a profusion of salmon, trout, jack, and eels; the sea-coast swarms with all the productions of the ocean. The hills and mountains are covered with sheep and black cattle for exportation, as well as domestic use. These are of small size, as are also the horses bred in the Highlands; but the Lowlanders use the large breed, which came originally from England.

The Orkney islands are about 30 in number; but many of them are uninhabited, the greater part being small, and producing only pasturage for cattle. The principal islands are denominated by the names of Mainland, South Ronaldsha, Swinna, Flotta, Copinsha, Strupensha, Strensa, Sanda, &c. the terminations in a, or ha, being generally given in the Teutonic, to such places as are surrounded by water. The currents and tides flowing between the islands are extremely rapid and dangerous. Near an island called Swinna are two great whirlpools, called the wells of Swinna, which are counted dangerous by mariners, especially in a calm. When sailors find themselves sucked into the vortex, it is said they throw out a barrel, or some bulky substance, which smooths the water till it is sucked down and thrown up at a considerable distance, during which time the ship passes over in safety. But when there is a breeze of wind, these whirlpools may be crossed without any danger.

The air of these islands is moist, on account of the neighbourhood of the sea; and frost and snow do not continue long. In some places the soil is bare and mountainous, and in others sandy and barren; however, many of the islands produce large crops of barley and oats, but no wheat or other grain, excepting what is inclosed in gardens. These, when duly cultivated, produce all kinds of kitchen herbs and roots, bringing even fruit-trees to maturity; but out of them, in the open country, there is scarce a tree or shrub to be seen, except juniper, wild myrtle, heath, and the cyur-hodon: yet this deficiency cannot be imputed to the poverty of the soil, or the nature of the climate; for the trunks of large oaks are frequently dug up in the marshes. This is likewise the case in the most barren parts of the Highlands of Scotland, where not a shrub is to be seen above the surface of the earth: nay, the inhabitants frequently find, deep in the earth, the roots of large trees, evidently exhibiting marks of the ax by which they were felled; so that these northern parts must have undergone some strange revolu-

tions. The Orkneys produce great variety of herbs and berries, grass and corn, which last is exported as far as Edinburgh. In some of the islands, the natives have discovered mines of tin, lead, and silver, though none of them are wrought to any advantage; in others, we find abundance of marl, grey and red slate, quarries of free-stone, and even of marble and alabaster.

When the wind rages to any violence, the sea throws in plenty of timber, torn from other countries; and not unfrequently the people find large pieces of ambergris. The fresh water in those islands is very pure and limpid; and, though there are no large rivers in the Orkneys, the ground is well watered with lakes and pleasant rivulets, that not only serve to turn their mills, but also abound with trout of the most delicate flavour.

Besides the abundance of little horses, black cattle, sheep, swine, and rabbits, the inhabitants of the Orkneys rear all sorts of domestic animals and tame poultry. Their heaths and commons yield plenty of red deer, and all sorts of game; partridges, grouse, heath-cocks, plover, ducks, teal, and widgeon: the sea-coast teems with seals and otters; are visited by whales, cod, ling, tusk, herrings, and all manner of fish; on the shore they find spermaceti or sepia, and a great variety of shells and corallines, with a multitude of oysters, remarkably large muscles, crabs, and cockles. The rocks are covered with sea-fowl, wild geese, solan geese, barnacles, eagles, hawks, and kites. With respect to the barnacles, or, as the natives call them, cleck geese, they are said to be found in shells, sticking by the bills to trees, in several islands. Martin affirms he has seen them in this situation, but could not perceive them alive, and indeed the whole account of their generation and production, exhibited by the northern naturalists, is absurd and unphilosophical. The Orkney eagles are so strong, that, according to the reports of the country, they have been known to carry away young children in their talons. Certain it is, they make such havoc among the lambs, that he who kills an eagle is entitled by law to a hen from every house in the parish where it was killed. The king's falconer visits these islands every year, in order to fetch away the young hawks and falcons from their nests among the precipices: he enjoys a yearly salary of twenty pounds, and may claim a hen or a dog from every house in the country, except those that are expressly exempted from this imposition.

They generally fish for herring on the west side of the Orkneys; and are therefore more remote from markets than those who are employed in the same manner on the coast of Shetland. In the Orkney islands they see to read at midnight in June and July; and during four of the summer months they have frequent communications, both for business and curiosity, with each other, and with the continent: the rest of the year, however, they are almost inaccessible, through fogs, darkness, and storms. It is a certain fact, that a Scotch fisherman was imprisoned in May, for publishing the account of the prince and princess of Orange being raised to the throne of England the preceding November; and he would probably have been hanged, had not the news been confirmed by the arrival of a ship.

We may reckon among the curiosities of the Orkneys, the Phaseoli, commonly known by the name of Molucca beans, and sometimes they are called Orkney beans. They

are a sort of fruit found on the shore of the Orkney islands, being thrown on them by storms of westerly wind. They are of several distinct species, and are none of them the produce of those islands, nor of any places thereabout, but are probably of American origin, many of them being plainly natives of Jamaica, and other islands of the Indies. They are found principally on those coasts which are most exposed to the waves of the great ocean, and are on these so plentiful, that they might be gathered in large quantities, if of any value; but the only use they are put to, is the making of snuff-boxes out of them. Sir Robert Sibbald and Mr. Wallace, in their accounts of Scotland, have both named them Molucca beans. Many strange fishes and curious shells are also frequently cast up by the ocean; of these last a vast variety are preserved for adorning the cabinets of modern naturalists. Sometimes exotic fowls are driven upon the Orkneys by tempestuous weather, fish, as large as whitings, have been thrown ashore to a considerable distance within the land. At Cantick head, in the island Waes, and some other places, huge stones are often heaved up by the violence of the sea and wind, and cast over high rocks upon the land. A single Laplander has been seen more than once on this coast, in his slender canoe, covered with skins, being driven hither by adverse winds, and storms.

The Shetland isles contain near three times as much land as the Orkneys; they are considered also as equal in size to the island of Madeira; and not inferior to the provinces of Utrecht, Zealand, and all the rest of the Dutch islands taken together; but of climate and soil they have not much to boast. The longest day in the island of Unst is 19h 15m. and of consequence the shortest day 4h. and 45 m. The spring is very late, the summer very short; the autumn also is of no long duration, dark, foggy, and rainy; the winter sets in about November, and lasts till April, and sometimes till May.

They have frequently in that season storms of thunder, much rain, but little frost or snow. High winds are indeed very frequent, and very troublesome, yet they seldom produce any terrible effects. The aurora borealis is as common here as in any of the northern countries. In the winter season, the sea swells and rages in such a manner, that for five or six months their ports are inaccessible, and of course the people during that space have no correspondence with the rest of the world.

The soil in the interior part of the main land, for the most part is mountainous, moorish, and boggy, yet not to such a degree as to render the country utterly impassable; for many of the roads here, and in some of the northern isles, are as good as any other natural roads, and the people travel them frequently on all occasions. Near the coast there are sometimes, for miles together, flat pleasant spots, very fertile both in pasture and corn. The mountains produce large crops of very nutritive grass in the summer; and they cut considerable quantities of hay, with which they feed their cattle in the winter. They might, with a little attention, bring more of their country into cultivation: but the people are so much addicted to their fishery, and feel so little necessity of having recourse to this method for subsistence, that they are content, how strange soever that may seem to us, to let four parts in five of their land remain in a state of nature.

They want not considerable quantities of marle in different islands, though they use

but little; hitherto there has been no chalk found; limestone and freestone there are in the southern parts of the main land in great quantities, and also in the neighbouring islands, particularly Fetlar; and considerable quantities of slate, very good in its kind. No mines have been hitherto wrought, though there are in many places visible appearances of several kinds of metal. Some solid pieces of silver, it is said, have been turned up by the plough. In some of the smaller isles, there are strong appearances of iron; but, through the want of proper experiments being made, there is, in this respect at least, hitherto nothing certain. Their meadows are inclosed with dikes, and produce very good grass. The little corn they grow is chiefly barley, with some oats; though even in the northern extremity of Unst, the little land which they have is remarkable for it's fertility. The hills abound with medicinal herbs; and their kitchen gardens thrive as well, and produce as good greens and roots as any in Britain. Of late years, and since this has been attended to, some gentlemen have had even greater success than they expected in the cultivation of tulips, roses, and many other flowers. They have no trees, and hardly any shrubs, except juniper, yet they have a tradition that their country was formerly overgrown with woods; and it seems to be a confirmation of this, that the roots of timber-trees have been, and are still, dug up at a great depth; and that in some, and those too in inaccessible places, the mountain ash is still found growing wild. That this defect, viz. the want of wood, at present, does not arise entirely from the soil or climate, appears from several late experiments; some gentlemen having raised ash, maple, horse-chesnuts, &c. in their gardens. Though the inhabitants are without either wood or coals, they are very well supplied with fuel, having great plenty of heath and peat.

The black cattle in this country are in general of a larger sort than in Orkney, which is owing to their having more extensive pastures; a clear proof that still farther improvements might be made in respect of size. Their horses are small, but strong, stout, well-shaped, live very hardy, and to a great age. They have likewise a breed of small swine, the flesh of which, when fat, is esteemed very delicious. They have no goats, hares, or foxes; and in general no wild or venomous creatures of any kind, except rats in some few islands. They have no moor-fowl, which is the more remarkable, as there are every where immense quantities of heath; but there are many sorts of wild and water-fowl, particularly the dunter-goose, clack-goose, solan-goose, swans, ducks, teal, whaps, foists, lyres, kittiwaiks, maws, plovers, cormorants, &c. There is likewise the ember-goose, which is said to hatch her egg under her wing. Eagles and hawks, as also ravens, crows, mews, &c. abound here.

All these islands are well watered: for there are every where excellent springs, some of them mineral and medicinal. They have indeed no rivers; but many pleasant rills or rivulets, which they call burns, of different sizes; in some of the largest they have admirable trout, some of which are of 15, and even of 20 pounds weight. They have likewise many fresh-water lakes, well stored with trout and eels, and in most of them there are also large and fine flounders; in some very excellent cod. Those fresh-water lakes, if the country was better peopled, and the common people more at their ease, are certainly capable of great improvements. The sea-coasts of the main land of

Shetland, in a straight line, are 55 leagues; and therefore there cannot be a country conceived more proper for establishing an extensive fishery. What the inhabitants have been hitherto able to do, their natural advantages considered, does not deserve that name, notwithstanding they export large quantities of cod, tusk, ling, and skate, insomuch that the bounty allowed by acts of parliament amounts from 1400*l.* to 2000*l.* annually. They have, besides, haddocks, whitings, turbot, and a variety of other fish. In many of the inlets, there are prodigious quantities of excellent oysters, lobsters, muscles, cockles, and other shell-fish. As to amphibious creatures, they have multitudes of otters and seals; add to these, that amber, ambergris, and other spoils of the ocean, are frequently found upon the coasts.

The situation of the Hebrides, in the great Atlantic ocean, renders the air cold and moist in the greater part of them. In the most northerly isles, the sun, at the summer solstice, is not above an hour under the horizon at midnight, and not longer above it at mid-day, in the depth of winter.

The soil of the Hebrides varies also in different isles, and in different parts of the same island: some are mountainous and barren, producing little else than heath, wild myrtle, fern, and a little grass; while others, being cultivated and manured with sea-weed, yield plentiful crops of oats and barley.

Lead mines have been discovered in some of these islands, but not worked to much advantage; others have been found to contain quarries of marble, lime-stone, and free-stone; nor are they destitute of iron, talc, crystals, and many curious pebbles, some of which emulate the Brazilian topaz.

With respect to vegetables, over and above the plentiful harvests of corn that the natives earn from agriculture, and the pot herbs and roots that are planted in gardens for the sustenance of the people, these islands produce spontaneously a variety of plants and simples, used by the islanders in the cure of their diseases; but there is hardly a shrub or tree to be seen, except in a very few spots, where some gentlemen have endeavoured to rear them, with much more trouble than success.

The animals, both of the land and sea, domestic and wild, quadrupeds, fowls, and fishes, found in and about these islands, are of the same species, size, and configuration, with those of the Orkneys.

THE ISLE OF MAN.

The isle of Man is an island in the Irish sea, lying about seven leagues north from Anglesey, about the same distance west from Lancashire, nearly the like distance south-east from Galloway, and nine leagues east from Ireland. Its form is long and narrow, stretching from the north-east of Ayre point to the Calf of Man, which lies south-west, at least 30 English miles. Its breadth in some places is more than nine miles, in most places eight, and in some not above five, and contains about 160 square miles.

This island, from its situation directly in the mouth of the channel, is very beneficial to Great Britain, by lessening the force of the tides, which would otherwise break with far greater violence than they do at present. It is frequently exposed to very high

winds; and at other times to mists, which, however, are not at all unwholesome. The soil towards the north is dry and sandy, and consequently unfertile, but not unimprovable; the mountains, which may include near two-thirds of the island, are bleak and barren; yet afford excellent peat, and contain several kinds of metals. They maintain a kind of small swine, called purrs, which are esteemed excellent pork. In the valleys there is as good pasture, hay, and corn, as in any of the northern countries; and the southern part of the island is as fine soil as can be wished. They have marl and limestone sufficient to render even their poorest lands fertile; excellent slate, ragstone, black marble, and some other kinds for building. They have vegetables of all sorts, and in the utmost perfection; potatoes in immense quantities; and, where proper pains have been taken, they have tolerable fruit: they have also hemp, flax, crops of oats and barley, and some wheat. Hogs, sheep, goats, black cattle, and horses, they have in plenty; and though small in size, yet, if the country was thoroughly and skilfully cultivated, they might improve the breed of all animals, as experience has shewn. They have rabbits and hares very fat and fine; tame and wild fowl in great plenty, and in their high mountains they have one airy of eagles, and two of excellent hawks. Their rivulets furnish them with salmon, trout, eels, and other kind of fresh-water fish. On their coasts are caught cod, turbot, ling, hallabut, all sorts of shell-fish, oysters only are scarce, but large and good herrings, of which they made antiently a great profit, though this fishery is of late much declined.

There is a ridge of mountains runs almost the length of the isle, from whence they have abundance of good water from the rivulets and springs; and Snafield, the highest, rises about 580 yards. The air is sharp and cold in winter, the frost short, and the snow, especially near the sea, lies not long on the ground. Here are quantities of good stone, rocks of lime-stone and red free-stone, and good slate, with some mines of lead, copper, and iron. Before the south promontory of Man is a little island, called the Calf of Man: it is about three miles in circuit, and separated from the isle of Man by a channel about two furlongs broad. At one time of the year it abounds with puffins, and also with a species of ducks and drakes, by the English called barnacles, and by the Scotch Soland geese.

THE SCILLY or SILLEY ISLANDS.

The Scilly or Silley islands lie due west from the Lizard, about 17 leagues; west and by south from the old Land's-end-mounts bay, at the distance of ten leagues; and from the western Land's end, they lie west-south-west, at the distance of something more than nine leagues. There are five of them inhabited; and that called Sampson has one family in it. The largest of these is St. Mary, which lies in the north latitude of 49° 53', and in the longitude of 6° 40' west from Greenwich. The air of these islands is equally mild and pure; their winters are seldom subject to frost or snow. When the former happens, it lasts not long; and the latter never lies upon the ground. The heat of their summers is much abated by sea-breezes: they are indeed much incommoded by sea fogs, but these are not unwholesome. Agues are rare, and fevers more so. The most

fatal distemper is the small-pox; yet those who live temperately survive commonly to a great age, and are remarkably free from diseases. The soil is very good, and produces grain of all sorts, (except wheat, of which they had antiently plenty) in large quantities. They still grow a little wheat, but the bread made of it is unpleasant: they eat, for this reason, chiefly what is made of barley; and of this they have such abundance, that though they use it both for bread and beer, they have more than suffices for their own consumption. The use of potatoes is a new improvement, and they prosper to such a degree, that in some places there are two crops in a year. Roots of all sorts, pulse, and salids, grow well; dwarf fruit-trees, gooseberries, currants, raspberries, and every thing of that kind, under proper shelter, thrive exceedingly; but they have no trees, though formerly they had elder, and porthelik, i. e. the harbour of willows, proves they had these likewise; and with a little care, no doubt great improvements might be made. The ranunculus, anemony, and most kind of flowers, are successfully cultivated in their gardens.

They have wild-fowl of all sorts, from the swan to the snipe: and a particular kind, called the hedge-chicken, which is not inferior to the ortolan; also tame fowl, puffins, and rabbits in great numbers. Their black cattle are generally small, but very well tasted, though they feed upon oreweed; their horses are little, but strong and lively, they have also large flocks of fine sheep, whose fleeces are tolerably good, and their flesh is excellent. There are no venomous creatures in these islands. In the harbour of St. Mary's and in all the little caves of the several isles, prodigious quantities of mackerel may be caught in their season, also soal, turbot, and plaice, remarkably good in their kind; and ling, which, from its being a thicker fish, mellower, and better fed, is very justly preferred to any caught nearer our own coasts. Salmon, cod, and pollock, are in great plenty, and pilchards in vast abundance; to these we may add the alga marina, or ore-weed, which serves to feed both their small and great cattle, manures their lands, is burned into kelp, is of use in physic, is sometimes preserved, sometimes pickled, and is in many other respects very beneficial to the inhabitants.

It remains to describe that group of islands, situated on the coast of France, which is all that remains of our antient Norman possessions. It consists of Jersey, Guernsey, Alderney, Sarke, and the Caskets. Jersey lies eighteen miles to the west of Normandy, and eighty-four to the south of Portland in Dorsetshire. It is not above twelve miles in length, nor much above six where broadest, which is at the two extremities. It is defended by rocks and dangerous quicksands. On the north side the cliffs rise 40 or 50 fathoms high, which render it inaccessible on that side; but on the south the shore is almost level with the water. In the west part of the island is a large tract of land, once cultivated and very fertile, but now a barren desert, caused by the westerly winds throwing up sand from the bottom to the top of the highest cliffs. The higher lands are diversified by gritty, gravelly, stony, and fine mould; the lower by a deep, rich, and heavy soil: the middle part of the island is somewhat mountainous, and so thick planted with trees, that at a distance it resembles one entire forest, though in walking through it, there is hardly a thicket or any other thing to be seen, but hedge-rows and orchards of apple-trees. The valleys under the hills are finely watered by brooks, and

have plenty of cattle and small sheep, with very fine wool, and very sweet meat, which is ascribed to the shortness of the grass: the horses are good for draught, but few fit for the saddle.

The island produces variety of trees, roots, and herbs: but not corn enough for the inhabitants, who therefore send for it to England and France, and sometimes to Dantzic. The fields are inclosed by great mounds of earth, raised from six to eight or ten feet high, proportionally thick and solid, planted with quicksets and trees. As the air of this island is very healthy, those of the inhabitants who are temperate, live to a great age: but the coast is very subject to storms by westerly winds, from which they have no lands to shelter them nearer than North America; and there is a vast chain of rocks about the island, among which the tides and currents are so strong and rapid, that the navigation is dangerous to those who are not perfectly acquainted with the coast. The buildings of this island are generally of rag-stone; but some of the wealthy inhabitants have their houses fronted with a reddish white stone, capable of being polished like marble, and of which there is a rich quarry on a hill called Montmado.

Guernsey extends from east to west in the form of a harp, and is thirteen miles and a half from the south-west to north-east, and twelve and a half, where broadest, from east to west. The air is very healthy, and the soil naturally more rich and fertile than that of Jersey; but the inhabitants neglect the cultivation of the land for the sake of commerce; they are, however, sufficiently supplied with corn and cattle, both for their own use and that of their ships. The island is well fortified by nature with a ridge of rocks, one of which abounds with emery, used by lapidaries in the polishing of stones, and by various other artificers. Cyder is here so plentiful, that the common people use it instead of small-beer, but the more wealthy drink French wine.

Alderney is about eight miles in compass, and is separated from Cape la Hogue, in Normandy, by a narrow strait, called the Race of Alderney, which is a very dangerous passage in stormy weather when the two currents meet; otherwise it is safe, and has depth of water for the largest ships. It is a healthy island, fruitful both in corn and pasture, and remarkable for a fine breed of cows.

Sark is a small island depending upon Guernsey, the inhabitants are long-lived, and enjoy from nature all the conveniences of life. To the west of Alderney lie the range of rocks called the Caskets, so dangerous to mariners.

We have now completed the survey of all that part of the British empire, of which it was proposed to treat in the present chapter. It would be easy to enumerate many of the animal, mineral, and vegetable productions of the island, but this we imagine would afford but little information or amusement to the reader, we shall therefore conclude this chapter with a description of such animals, as are either uncommon, or possessed of certain qualities which entitle them to peculiar regard.

The horse, in a domesticated state, is a bold and fiery animal; equally intrepid as his master, he faces danger and death with ardour and magnanimity. He delights in the noise and tumult of arms, and seems to feel the glory of victory: he exults in the chace: his eyes sparkle with emulation in the course. But, though bold and intrepid, he is docile and tractable: he knows how to govern and check the natural vivacity and

fire of his temper. He not only yields to the hand, but seems to consult the inclination of his rider. Constantly obedient to the impressions he receives, his motions are entirely regulated by the will of his master. He in some measure resigns his very existence to the pleasure of man. He delivers up his whole powers; he reserves nothing; he will rather die than disobey. Who could endure to see a character so noble abused! who could be guilty of such gross barbarity!

This character, though natural to the animal, is in some measure the effect of education. His education commences with the loss of liberty, and is finished by constraint. The slavery of the horse is so antient and universal, that he is but rarely seen in a natural state.

Several antient writers talk of wild horses, and even mention the places where they were to be found. Herodotus takes notice of white savage horses in Scythia; Aristotle says they are to be found in Syria; Pliny in the northern regions; and Strabo in Spain and the Alps. Among the moderns, Cardan says, that wild horses are to be found in the Highlands of Scotland and the Orkney isles; Olaus, in Muscovy; Dapper, in the island of Cyprus; Leo and Marmol, in Arabia and Africa, &c. But as Europe is almost equally inhabited, wild horses are not to be met with in any part of it; and those of America were originally transported from Europe by the Spaniards; for this species of animals did not exist in the new world. The Spaniards carried over a great number of horses, left them in different islands, &c. with a view to propagate that useful animal in their colonies these have multiplied incredibly in the vast deserts of those thinly peopled countries, where they roam at large without any restraint. M. de Salle relates that he saw, in the year 1685, horses feeding in the meadows of North America, near the bay of St. Louis, which were so ferocious, that nobody durst come near them. Œxmelin says, that he has seen large troops of them in St. Domingo running in the valleys; that when any person approached, they all stopped; and one of them would advance till within a certain distance, then snort with his nose, take to his heels and the whole troop after him. Every author who takes notice of these horses of America, agree that they are smaller and less handsome than those of Europe. These relations sufficiently prove, that the horse, when at full liberty, though not a fierce or dangerous animal, has no inclination to associate with makind; that all the softness and ductility of his temper proceeds entirely from the culture and polish he receives in his domestic education, which in some measure commences as soon as he is brought forth.

In lord Tankerville's park, at Chillingham, near Berwick-upon-Tweed, there is yet left a breed of wild cattle, probably the only remains of the true and genuine breed of that species at present to be found in this kingdom. Their colour is invariably white, with the muzzle black, and the whole inside of the ear, and about one third part of the outside, from the hip downwards, red: their horns are white, with black tips, very fine, and bent upwards. The weight of the oxen is from 35 to 45 stone, and of the cows, from 25 to 35, 14lb. to the stone. At the first appearance of any person near them, they set off full gallop, and, at the distance of two or three hundred yards, wheel round, and come boldly up again, tossing their heads in a menacing manner. On a sudden they make a full stop,

at the distance of 40 or 50 yards, looking wildly at the object of their surprise, but on the least motion, they all turn round, and gallop off again with equal speed, but not to the same distance, forming a smaller circle, and again returning with a bolder and more threatening aspect than before; they approach much nearer, probably within thirty yards, when they make another stand, and again gallop off. This they do several times, shortening their distance, and advancing nearer, till they come within a few yards, when most people think it prudent to leave them, not choosing to provoke them further, as it is probable that in a few turns more they would make an attack.

The mode of killing them was perhaps the only modern remains of the grandeur of antient hunting. On notice being given that a wild bull would be killed on a certain day, the inhabitants of the neighbourhood assembled, sometimes to the number of a hundred horsemen and four or five hundred foot, all armed with guns or other weapons. Those on foot stood upon the walls, or got into trees, while the horsemen rode off a bull from the rest of the herd, until he stood at bay, when they dismounted and fired. At some of these huntings, twenty or thirty shots have been fired before the animal was subdued On such occasions, the bleeding victim grew desperately furious, from the smarting of his wounds, and the shouts of savage joy echoing from every side. But from the number of accidents which happened, this dangerous mode has been little practised of late years, the park-keeper alone generally killing them with a rifle gun at one shot. When the cows calve, they hide their young for a week or ten days, in some sequestered situation, and go to suckle them two or three times a day If any persons come near the calves, these clap their heads close to the ground, and lie like a hare in form, to hide themselves.

This seems a proof of their native wildness, and it is corroborated by the following circumstances, that happened to Dr. Fuller, the author of the History of Berwick, who found a hidden calf, two days old, very lean and weak. On his stroking its head, it got up, pawed two or three times like an old bull, bellowed very loud, went back a few steps, and bolted at his legs with all its force; it then began to paw again, bellowed, stepped back, and bolted as before But being aware of its intentions, he moved aside, and it missed its aim, fell, and was so very weak, that, though it made several efforts, it was not able to rise. It, however, had done enough; the whole herd was alarmed, and coming to its rescue, they obliged him to retire. When any of them happen to be wounded, or grown weak and feeble through age or sickness, the rest of the herd set upon and gore them to death.

The sheep, in the mountainous parts of Wales, where the liberty they enjoy is so great as to render them very wild, do not always collect into large flocks, but sometimes graze in parties of from eight to a dozen, of which one is stationed at a distance from the rest, to give notice of the approach of danger. When the centinel observes any one advancing, at the distance of two or three hundred yards, he turns his face to the enemy, keeping a watchful eye upon his motions, allowing him to approach as near as eighty or an hundred yards; but when the suspected foe manifests a design of coming nearer, the watchful guard alarms his comrades by a loud hiss or whistle, twice or thrice repeated,

when the whole party instantly scour away with great agility, always seeking the steepest and most inaccessible parts of the mountains.

The domestic hog is, generally speaking, a very harmless creature, and preys on no animals, but either dead ones, or such as are incapable of resistance. He lives mostly on vegetables, yet can devour the most putrid carcases. We, however, generally conceive him to be much more indelicate than he really is. He selects, at least, the plants of his choice, with equal sagacity and niceness, and is never poisoned, like some other animals, by mistaking noxious for wholesome food. Selfish, indocile, and rapacious, as we think him, no animal has greater sympathy for those of his own kind. The moment one of them gives the signal of distress, all within hearing rush to its assistance. They have been known to gather round a dog that teased them, and kill him on the spot Inclose a male and female in a sty when young, and the female will decline from the instant her companion is removed, and will probably die of a broken heart. This animal is well adapted to the mode of life to which it is destined. Having to gain a subsistence principally by turning up the earth with its nose, we find that the neck is strong and brawny ; the eyes small, and placed high in the head ; the snout long, the nose callous and tough, and the power of smelling peculiarly acute. Its external form is indeed very unwieldy, but by the strength of its tendons, the wild boar is enabled to fly from the hunters with surprising agility. The back toe on the feet of this animal prevents its slipping while it descends steep declivities.

The stag is one of those innocent, gentle, and peaceable animals, which seem to be destined to embellish and animate the solitude of the forest, and to occupy at a distance from the tranquil retreats of those gardens of nature. The elegance and lightness of his figure, the commodiousness of his stature, the flexibility and nervousness of his limbs, his grandeur, strength, and swiftness, and his head, which is rather adorned than armed with living branches, that, like the leaves of trees, are annually renewed, sufficiently distinguish him from the other inhabitants of the wood.

No species of animals makes so near an approach to another as the fallow deer to that of the stag. But though their similarity be great in every respect, they fly from each other, never intermix, and of course give rise to no intermediate race. It is even rare to find fallow deer in a country much frequented by stags, unless they are industriously transported into it. Their nature seems to be less rustic and robust than that of the stags ; and they are likewise less common in the forests, They are kept in parks where they may be said to be half domestic. More of them are reared in England than in any other country in Europe ; and the English are extremely fond of their venison. The dogs also prefer the flesh of this deer to that of all other animals ; and after they have once eat of it, they are extremely apt, in the chase of the stag or roe deer, to change their course when they perceive the scent of the fallow deer. In some provinces of France, there are fallow deer, as also in Spain and Germany. Those of America were probably transported from Europe. It seems to be an animal peculiar to the temperate climates ; for there are none in Russia, and they are seldom met with in Sweden, or other northern countries

Hares are equally diffused over all climates. They abound in Sweden, Denmark, Poland, Russia, France, Britain, Germany, Barbary, Egypt, the islands of the Archipelago, and particularly Delos, which was called Lagaia by the antient Greeks because of the number of hares which were found there. Lastly, hares are numerous in Lapland, where they are white for ten months of the year, and resume their proper colour only during the two warm months of summer. Hence it appears, that every climate is nearly equal to these animals. It has, however, been remarked, that they are less frequent in the east than in Europe, and that they are very rare in South America, though they again make their appearance in Virginia, Canada, in the neighbourhood of Hudson's bay, and the straits of Magellan. But these North American hares are perhaps a different species from ours; for travellers inform us, that they are not only much larger, but that their flesh is white, and of a different taste from that of the common kind. They add, that the hair of the North American hares never falls off, and that their skins are excellent furs. In excessively hot countries, as Senegal, Gambia, Guinea, and particularly in the cantons of India, Assam, Agra, and some other regions situated under the torrid zone, both in Africa and America, as in New Holland, and the isthmus of Panama, there are animals which have been called hares by travellers, but are rather a species of rabbit; for the rabbit is a native of warm climates, and is never found very far to the north, but the hares are larger and stronger in proportion to the coldness of the country they inhabit.

Great Britain was formerly so noted for its mastiffs, that the Roman emperor appointed an officer in this island, whose sole business was to breed, and transmit from hence to the amphitheatre, such as would prove equal to the combats of the place. Strabo tells us, that the mastiffs of Britain were trained to war, and were used by the Gauls in their battles: and it is certain, a well-trained mastiff might be of use in distressing such half-armed and irregular combatants as the adversaries of the Gauls seem generally to have been before the Romans conquered them. Caius says, that three of these were reckoned a match for a bear, and four for a lion; but, from an experiment made in the tower of London, that noble quadruped was found an unequal match to only three: two of the dogs were disabled in the combat, but the third forced the lion to seek for safety by flight. The English bull dog seems to belong to this species.

M. de Buffon has given a genealogical table of all the known dogs, in which he makes the shepherd's dog the origin of all, because it is naturally the most sensible. This dog, when transported into Lapland, or other very cold climates, assumes an ugly appearance, and shrinks into a smaller size; but in Russia, Iceland, and Siberia, where the climate is less rigorous, and the people a little more advanced in civilization, he seems to be better accomplished. These changes are occasioned solely by the influence of those climates, which produce so great an alteration in the figure of this dog, for in each of these climates his ears are erect, his hair thick and long, his aspect wild, and he barks less frequently, and in a different manner than in more favourable climates, where he acquires a finer polish. The same shepherd's dog, when brought into temperate climates, and among a people perfectly civilized, as Britain, France, Germany, would

by the mere influence of the climate, lose his savage aspect, his erect ears, his rude thick long hair and assume the figure of a bull-dog, the hound, and the Irish grey-hound. The bull-dog and Irish grey-hound have their ears still partly erect, and very much resemble, both in their manners and sanguinary temper, the dog from which they derive their origin. The hound is farthest removed from the shepherd's dog; for his ears are long and entirely pendulous. The gentleness, docility, and even the timidity of the hound, are proofs of his great degeneration, or rather of the great perfection he has acquired by the long and careful education bestowed upon him by man. He has joined the common harrier to the Dalmation dog, or harrier of Bengal, because they differ only in having more or fewer spots on their coat. He hath also linked the turnspit or terrier with crooked legs, with the common terrier; because the defect in the legs of the former has originally proceeded from a disease similar to the rickets, with which some individuals had been affected, and transmitted the deformity to their descendants.

The hound, when transported into Spain and Barbary, where all animals have fine, long, bushy hair, would be converted into the spaniel, and water-dog. The great and small spaniel, which differ only in size, when brought into Britain, have changed their white colour into black, and become, by the influence of climate, the great and little King Charles's dog. To these may be joined the pyrame, which is only a King Charles's dog, black like the others, but marked with red on the four legs, and a spot of the same colour above each eye, and on the muzzle.

The Irish grey-hound, transported to the north, is become the great Danish dog, and when carried to the south, was converted into the common grey hound. The largest grey-hounds came from the Levant, those of a smaller size from Italy; and those Italian grey-hounds, carried into Britain, have been still further diminished.

The great Danish dog, transported into Ireland, the Ukraine, Tartary, Epirus, and Albania, has been changed into the Irish grey-hound, which is the largest of all dogs.

The bull-dog, transported from Britain to Denmark, is become the little Danish dog; and the latter, brought into warm climates, has been converted into the Turkish dog. All these races, with their varieties, he believes to have been produced by the influence of climate, joined to the effects of shelter, food, and education. The other dogs are not pure races, but have proceeded from commixtures of those already described.

The dog has such a strong resemblance to the wolf and the fox, that he is commonly supposed to be the production of one or other of these animals tamed and civilized. Buffon, after having made several fruitless experiments, concluded that dogs, wolves, and foxes, are perfectly three distinct races of animals.

There has, however, been lately an instance to the contrary. Mr. Brooke, animal merchant in Holborn, turned a wolf to a Pomeranian bitch, which produced ten puppies. Mr. Pennant saw one of them at Gordon Castle, that had very much the resemblance of a wolf, and also much of its nature; being slipped at a weak deer, it instantly caught at the animal's throat and killed it. "I could not learn (says Mr. Pennant) whether this mongrel continues its species; but another of the same kind did, and stocked the neighbourhood of Fochabers, in the county of Murray, where it was kept, with a mul-

titude of curs of a most wolfish aspect: the bitch will also breed with the fox. The woodman of the manor of Mongewell, in Oxfordshire, had a bitch which constantly followed him, the offspring of a tame dog-fox by a shepherd's cur; and she again had puppies by a dog. Since then, concludes Mr. Pennant, there are such authentic proofs of the further continuance of the breed, we may surely add the wolf and fox to the other supposed stocks of these faithful domestics."

Of all animals, the fox has the most significant eye, by which it expresses every passion of love, fear, hatred, &c. It is remarkably playful; but, like all other savage creatures, half reclaimed, will, on the least offence, bite those it is most familiar with. It is a great admirer of its bushy tail, with which it frequently amuses and exercises itself, by running in circles to catch it; and in cold weather, wraps it round its nose. The smell of this animal is in general very strong, but that of the urine is remarkably fœtid.

The badger is an indolent, diffident, solitary animal. He retires to the most secret places, to the inmost recesses of the forest, and there digs a subterranean habitation He seems to fly society, and even the light, and spends three fourths of his life in his dark abode, from which he never departs but in quest of subsistence. As his body is long, his legs short, his claws, especially those of the fore-feet, very long and strong, he digs and penetrates the earth with greater facility than any other animal. He makes his hole winding and oblique. The fox, who cannot dig with equal dexterity, avails himself of the operations of the badger. Being unable to make him quit his habitation by force, the fox practises every art to render him uneasy. He stands centinel at the entrance of the hole, and even defiles it with his ordure. He afterwards takes possession, enlarges, and fits it up for his own accommodation The badger, though obliged to change his habitation, leaves not his country, he goes only to a small distance, where he digs a fresh hole, from which he never removes but in the night; and as he never goes far, he returns upon the approach of danger. This is his only mean of safety; for he cannot escape by flight; his legs are too short for quick motion. When at some distance from his hole, he is soon overtaken by the dogs; they seldom, however, accomplish their purpose without assistance. The hair of the badger is very thick, and his legs, jaws, teeth, and claws, are exceedingly strong. These natural weapons he uses with courage and dexterity. He lies on his back, resists all the efforts of the dogs, and wounds them in the most dangerous manner. He is besides very tenacious of life, fights long, makes a brave defence, and persists to the very last extremity.

The golden eagle is a native of Europe, and even of some of the more mountainous parts of Great Britain. It is a large species, weighing 12 or 14 pounds, measuring in length three feet, and from tip to tip of his wings seven feet and a half. The bill is deep blue, and the cere yellow; the head and neck are of a dark brown, bordered with tawny, the hind-part of the head is of a bright rust colour, and the rest of the body brown; the tail is blotched with ash colour; the legs are yellow, and feathered to the toes, which are scaly; the claws are remarkably large, the middle one being two inches in length. This eagle has been generally considered by mankind as having the same dominion over the birds, which they have, almost unanimously, attributed to the lion over the quadrupeds. The Comte de Buffon, taking up the idea, is of opinion that they have many

points of resemblance, both physical and moral " Magnanimity" he says," " is equally conspicuous in both: they despise the small animals, and disregard their insults. It is only after a series of provocations, after being teazed with the noisy or harsh notes of the raven or magpie, that the eagle is determined to punish their temerity or their insolence with death. Besides, both disdain the possession of that property which is not the fruit of their own industry; and they reject with contempt the prey which is not procured by their own exertions. Both are remarkable for their temperance. This species seldom devours the whole of his game; but, like the lion, leaves the fragments and offals to other animals. Though famished for want of prey, he disdains to feed upon carrion." Like the lion also he is solitary, the inhabitant of a desert, over which he reigns supreme, and excludes all other birds from his silent domain. It is more uncommon, perhaps, to see two pair of eagles in the same tract of mountain, than two families of lions in the same part of the forest. They separate from each other at such wide intervals, as to afford ample range for subsistence, and esteem the value and extent of their dominion to consist in the abundance of the prey with which it is replenished. The eyes of the eagle have the glare of those of the lion, and are nearly of the same colour; the claws are of the same shape; the organs of sound are equally powerful, and the cry equally terrible. Destined both of them for war and plunder, they are equally fierce, equally bold, and untractable. It is impossible to tame them, unless they be caught in their infancy. It requires much patience and art to train a young eagle to the chace; and after he has attained to age and strength, his caprices and momentary impulses of passion are sufficient to create suspicions and fears in his master. Authors inform us, that the eagle was antiently used in the east for falconry; but this practice is now laid aside. He is too heavy to be carried on the hand without great fatigue; nor is he ever brought to be so tame or so gentle, as to remove all suspicions of danger. His bill and claws are crooked and formidable, his figure corresponds with his instinct; his body is robust; his legs and wings strong; his flesh hard; his bones firm; his feathers stiff; his attitude bold and erect; his movements quick; his flight rapid. He rises higher in the air than any of the winged race, and hence he was termed by the antients the celestial bird, and regarded in their auguries as the messenger of Jupiter. He can distinguish objects at an immense distance, but his smell is inferior to that of the vulture. By means of his exquisite sight he pursues his prey, and when he has seized it, he checks his flight, and places it upon the ground, to examine its weight before he carries it off. Though his wings are vigorous, yet his legs being stiff, it is with difficulty he can rise, especially if he be loaded. He is able to bear away geese and cranes; he also carries off hares, young lambs, and kids. When he attacks fawns or calves, he instantly gluts himself with their blood and flesh, and afterwards transports their mangled carcases to his nest or airy."

The osprey frequents large rivers, lakes, and the sea-shores, both of Europe and America. It is about two feet long, and somewhat more than five feet broad; and its wings, when closed, reach beyond the end of the tail: the head is small, and on the top is black or brown, variegated with white: the upper parts of the body and the whole of the tail are brown, and the belly is white. It is singular in this bird, that the outer toe

turns easily backward, so as on occasion to have the toes two forward and two backward, and has a much larger claw than the inner one. This, and the peculiar roughness of the whole foot underneath, are well adapted to secure the fish, their slippery prey. This bird frequently affords much amusement to strangers on the larger rivers of America. During the spring and summer months, the osprey is often seen hovering over the rivers, or resting on the wing for several minutes at a time, without the least visible change of place. It then suddenly darts down, and plunges into the water, from whence it very seldom rises again without some fish in its talons. When it rises into the air, it immediately shakes off the water, which it throws around like a mist, and pursues its way towards the woods. The bald eagle, which is on these occasions generally upon the watch, instantly pursues, and if it can overtake it, endeavours to soar above it. The osprey, solicitous for its own safety, drops the fish in alarm; the eagle immediately pounces at this prey, and never fails to catch it before it reaches the water, leaving the hawk to begin his work afresh. It is somewhat remarkable, that whenever the osprey catches a fish, it always makes a loud screaming noise, which the eagle, if within hearing, never fails to obey. Sometimes it happens, that, if the osprey is pretty large and strong, it will contend with the eagle for its rightful property; and, though generally conquered in the end, a contest has been sustained for upwards of half an hour. The osprey generally builds its nest on the ground, among reeds, and lays three or four white eggs, rather smaller than those of a hen. Mr. Montague says, that he once saw the nest of this bird on the top of a chimney of a ruin in an island of Loch Lomond, in Scotland: it was large and flat, formed of sticks laid across, lined with flags, and rested on the sides of the chimney.

Of the stilt plover, Mr. White has given us a very pleasing description. "In the last week of last month (April 1779.) five of these most rare birds, too uncommon to have obtained an English name, but known to the naturalists by the term Kimantopus, or Loripes, or Charadius himantopus, were shot upon the verge of Frensham-pond, a large lake belonging to the bishop of Winchester, and lying between Woolmer forest and the town of Farnham in the county of Surry. The pond-keeper says there were three brace in the flock; but that after he had satisfied his curiosity, he suffered the sixth to remain unmolested. One of these specimens I procured, and found the length of the legs to be so very extraordinary, that at first sight one might have supposed the shanks had been fastened on to impose on the credulity of the beholder: they were legs in caricature; and had we seen such proportions on a Chinese or a Japan screen, we should have made large allowances for the fancy of the draughtsman. These birds are of the plover family, and might with propriety be called the stilt plover. My specimen, when drawn and stuffed with pepper, weighed only four ounces and a quarter, though the naked part of the thigh measured three inches and a half. Hence we may safely assert that these birds exhibit weight for inches, and have incomparably the greatest length of legs of any known bird. The flamingo, for instance, is one of the most long-legged birds, and yet it bears no manner of proportion to the himantopus; for the cock flamingo weighs, at an average, about four pounds avoirdupoise; and his legs and thighs measure usually about twenty inches. But four pounds are fifteen times and a fraction more than four ounces

and a quarter; and if four ounces and a quarter have eight inches of legs, four pounds must of course have 120 inches and a fraction of legs, namely, somewhat more than ten feet; such a monstrous proportion as the world never saw: If we try the experiment in still larger birds, the disparity would still increase. It must be matter of great curiosity to see the stilt plover move, to observe how it can wield such a length of lever with such feeble muscles as the thighs seem to be furnished with. At best one should expect it to be but a bad walker: but what adds to the wonder is, that it has no back toe. Now without that steady prop to support its steps, it must be liable, in speculation, to perpetual vacillations, and seldom able to preserve the true centre of gravity. These long-legged plovers are birds of South Europe, and rarely visit our island: and when they do, are wanderers and stragglers, and impelled to make so distant and northern an excursion; or from motives, or accidents, for which we are not able to account." This bird is common in Egypt, and the warmer parts of America, where it feeds on flies and other insects.

Few birds are more execrated by the farmers, and perhaps more unjustly so, than the sparrows. It is true, they do us some injuries in our rural economy, but they have been fully proved, to be much more useful than they are noxious. Mr. Bradley in his General Treatise on Husbandry and Gardening, shews, that a pair of sparrows, during the time they have their young to feed, destroy, on an average, every week, 3360 caterpillars. This calculation he founded upon actual observation. He discovered that the two parents carried to the nest 40 caterpillars in an hour. He supposed the sparrows to enter the nest only during 12 hours each day, which would cause a daily consumption of 480 caterpillars. This sum, multiplied by seven, or the days in a week, gives 3360 caterpillars extirpated weekly from a garden. But the utility of these birds is not limited to this circumstance alone; for they likewise feed their young with butterflies, and other winged insects, each of which, if not destroyed in this manner, would be the parent of hundreds of caterpillars.

In solitude the goldfinch delights to view its image in a mirror, fancying, probably, that it sees another of its own species; and this attachment to society seems to equal the cravings of nature, for it is often observed to pick up the hempseed, grain by grain, and advance to eat at the mirror, imagining, no doubt, that it is thus feeding in company.

This selection, which has here been made from the British animals, we should willingly have enlarged, had our limits permitted; but what has been effected is sufficient to prove that it is not necessary to travel to foreign climes, in order to meet with objects that deserve our investigation; for if we survey with proper attention the productions of our own island, we shall be led to admire, in numberless instances, the power and wisdom of the great Creator.

CHAPTER II.

THE ANTIENT BRITONS.——*Fabulous accounts of Britain. The Celtæ. The Belgæ. Manners of the antient Britons, their trade with the Phenicians. The Druids. Stonehenge, and other remains of British architecture.*

THE antient history of Britain, like that of most other countries is clouded with fiction. The Welch and Scotch have fabricated many marvellous tales to increase the antiquity and celebrity of their ancestors. The Welch refer us to one Brute or Brutus, who is said to have been the son of Sylvius, and he of Ascanius, the son of Æneas, and born in Italy. Killing his father by chance, he fled into Greece, where he took king Pandrasus prisoner, who kept the Trojans in slavery, whom he released on condition of providing ships, &c. for the Trojans to forsake the land. Being advised by the oracle to sail west beyond Gaul, he, after some adventures, landed at Totness in Devonshire.

Albion was then inhabited by a remnant of Giants, whom Brutus destroyed; and called the island after his own name, Britain. He built a city called New Troy, since London; and having reigned here 24 years, at his death parcelled the island among his three sons: Locrine had the middle, called Loegria; Camber had Wales, and Albanact Scotland. From Brutus it is asserted, that a race of princes descended, of whom the most celebrated were Lisle, the founder of Carlisle; Lud, to whom the enlargement of London is ascribed; and Lear, the celebrated subject of one of the tragedies of Shakespeare.

The historians of Scotland placed the reign of Fergus in 330 before Christ. He was the son of Ferchard, an Irish prince; and is said to have been called into Scotland by the Caledonians, to assist them against the southern Britons with whom they were then at war. Having landed on one of the Æbudæ or Western isles, he had a conference with the Caledonians, whose language and manners he found to be the same with those of his countrymen. Having then landed in Scotland, and taken the field at the head of his new allies, he engaged the Britons under their king Coilus. Victory declared in favour of the Scots; Coilus was defeated and killed; and from him the province of Kyle first received its name. After this, Fergus was declared king of the Scots, with the solemnity of an oath. But he did not long enjoy his new dignity: for having been recalled to Ireland, to quiet some commotions there, he was drowned, by a sudden tempest, on his return, at a place in Ireland called from him Knock-Tergus, or Carrick-Fergus; i. e. Fergus's Rock.

Fergus was succeeded by his brother Feritharis, to the prejudice of his two sons, Ferlegus and Mainus. This, we are told by the antient Scottish writers, was done in conformity to a law, by which it was ordained, that, whilst the children of their kings were infants, one of their relations, who was reckoned most fit for the government, should be

raised to the throne, but that after his death the sovereignty should return to the sons of the former king. This was the case at present; however, Ferlegus, impatient for the crown, made a formal demand of it from his uncle. The dispute being referred to an assembly of the states, Feritharis was confirmed on the throne; and Ferlegus would have been condemned for sedition, had not his uncle interposed. However, he was imprisoned; but having made his escape, he fled first to the Picts, and then to the Britons, in order to excite them against Feritharis. With both he failed in accomplishing his purpose: but, in the mean time, his uncle being stabbed in his bed, the suspicion fell upon Ferlegus, who was thereupon set aside from the succession, and died in obscurity, the throne being conferred upon his brother Mainus.

The reigns of Mainus, Dornadil, and Nothat, afford nothing remarkable, excepting that Dornadil, who was a great hunter, instituted the laws of hunting in this country. Nothat was killed in a battle with Renther his nephew; upon which the latter was immediately invested with the sovereignty. A bloody war ensued, in which both parties were reduced to the last extremity, and glad at length to conclude a peace. The fate of Renther is not known; but it is generally supposed that he ended his life in the year 187 before Christ.

The reigns of Rutha, Therens, Jasina, and Finnan, afford no remarkable transactions, excepting that under the last we find the first beginnings of Scottish parliament; as he enacted, that kings should do nothing without the consent of their grand council. After him followed Durstus, Evan, and Gillus, whose reigns afford nothing of consequence. Evan II. the nephew of Finnan, who succeeded Gillus, is said to have built the towns of Innerlochy and Inverness. He overcame Belos, king of the Orkneys, who had invaded Scotland, and was succeeded by his son Edas, who is said to have assisted the Britons in repelling the invasion of Cæsar.

Giving up, however, these traditionary accounts, as extremely uncertain and suspicious, many men of great genius and immense philological learning, have laboured to ascertain the origin of the Britons, by comparing their language, manners, and religion, with those of the inhabitants of adjacent countries. In such an ample field for speculation, we must expect a variety of opinions to be formed, but we shall find they generally agree in this particular, that Britain, Ireland, and France were peopled by the same race of men, to whom they give the denomination of Celtæ, or Celtes. The compilers of the Universal History are of opinion, that they are descended from Gomer, the eldest son of Japhet, the son of Noah. They think that Gomer settled in the province of Phrygia in Asia; Ashkenaz, his eldest son, or Togarmah, his youngest, or both, in Armenia; and Riphath, the second son, in Cappadocia. When they spread themselves wider, they seemed to have moved regularly in columns, without interfering with or disturbing their neighbours. The descendants of Gomer, or the Celtæ, took the left hand, insensibly spreading themselves westward towards Poland, Hungary, Germany, France, and Spain; while the descendants of Magog, Gomer's brother, moving eastward, peopled Tartary.

In this large European tract, the Celtes began to appear a powerful nation, under a regular monarchy, or rather under several considerable kingdoms. Mention is made

of them indeed in so many parts of Europe, by antient geographers and historians, that Ortelius took Celtica to be a general name for the continent of Europe, and made a map of it bearing this title. In those parts of Asia which they possessed, as well as in the different parts of Europe, the Celtes went by various names. In lesser Asia they were known by the names of Titans and Sacks; in the northern parts of Europe, by those of Cymmerians, Cymbrians, &c. and in the southern parts they were called Celtes Gauls, or Galatians.

If it may be admitted that the inhabitants of all the British islands were originally Celtæ, it brings into narrow compass the dispute which has been agitated concerning the extraction of the Scots. Mr. Macpherson, as well as many other antiquaries, contends they were Caledonians; while Mr. Whitaker, who is followed by many learned men, is inclined to consider them as descendants of the Irish.

Between these two different opinions, a middle course has been taken; the Scots, it is said, were originally descended from the Britons of the south, or from Caledonians, who being pressed forward, by new colonies from Gaul, till they came to the western shore of Britain, passed over from thence into Ireland; probably about 100 years before the Christian era. About the year of Christ 320, they returned again into Britain; or at least a large colony of them, under the conduct of Fergus, and settled on the western coasts of Caledonia, from whence they had formerly migrated. As early as the year 340, we find them associated with the Picts in their expeditions to the Roman province; and for 90 or 100 years after, their ravages are frequently mentioned by the Roman and British writers.

The territory of the antient Scots, before the annexation of Pictavia, comprehended all that side of Caledonia which lies along the north and western ocean, from the frith of Clyde to the Orkneys. Towards the east, their dominions were divided from the Pictish territories, by those high mountains which run from Dumbarton to the frith of Tain. In process of time, the Scots, under the reign of Kenneth, the son of Alpin, became so powerful as to subdue entirely their neighbours the Picts, and gave their own denomination to all Caledonia, Pictavia, and Valentia; all which are still comprehended under the general name of Scotland.

England, including the principality of Wales, when first invaded by the Romans, was divided into 17 petty states. 1. The Danmonii, called also Dunmonii and Donmonii, inhabiting the counties of Cornwall and Devonshire: 2. the Durotriges, who inhabited the tract now called Dorsetshire: 3. the Belgæ possessed Somersetshire, Wiltshire, and Hampshire: 4. the Attrebatii, or inhabitants of Berkshire: 5. the Regni, whose country bordered on that of the Attrebatii, and comprehended Surry, Sussex and part of the sea-coast of Hampshire: 6. the Cantii, inhabiting the county now called Kent: 7. the Dobuni are placed by Ptolemy on the north side of the Thames, near its head, in the counties of Gloucestershire and Oxfordshire: 8. the Cattieuchlani, Calyeuchlani, Cattidudani, or Cattricludani, inhabited Buckinghamshire, Bedfordshire, and Hertfordshire: 9. the Trinobantes, who possessed the counties of Essex and Middlesex. 10. the Iceni, whose country comprehended Suffolk, Norfolk, Cambridge, and Huntingdonshire; these are by Ptolemy called Simeni, and by others

Tigeni; Cambden is of opinion, that they were the same whom Cæsar called Cenimagni: 11. the Coritani, whose country comprehended Northamptonshire, Leicestershire, Rutlandshire, Lincolnshire, Nottinghamshire, and Derbyshire: 12. the Cornavii possessed Warwickshire, Worcestershire, Staffordshire, Shropshire, and Cheshire: 13. the Silures inhabited the counties of Radnorshire, Brecknockshire, Glamorganshire, with Herefordshire, and Monmouthshire: 14. the Demetæ inhabited part of Caermarthenshire, Pembrokeshire, and Cardiganshire: the country of the Ordovices comprehended Montgomeryshire, Merionethshire, Caernarvonshire, Denbighshire, and Flintshire: 16. the Brigantes possessed the counties of Yorkshire, the bishoprick of Durham, Lancashire, Westmoreland, and Cumberland: 17. the county of Northumberland was held by the Ottadini, Ottadeni, or Ottalini; their country, according to some, reached from the Tyne to the river Forth; though the most common opinion is, that it reached only to the Tweed.

The above-mentioned names of those nations are plainly Roman, but the etymology of them is not easily ascertained. Some attempt to derive them from words in the old British language, but as this subject at best must be very obscure and uncertain, we shall not enter into it.

Cæsar appears to have distinguished the Britons into two races of men, the Belgæ and the original inhabitants. The interior part of Britain, says he, is inhabited by those whom they relate to have been natives of the island itself; the maritime by those, who, to obtain plunder, and prosecute their conquests, had passed over from among the Belgæ; almost all of whom are called by the names of those states from which they migrated when they arrived in Britain, and having finished the war, remained there and began to cultivate the ground. The Belgic colonists were of more polished manners than the inhabitants of the interior and northern parts of the island. The wars and animosities which arose between the new and old inhabitants, are said to have contributed more than any thing to facilitate the victories of Cæsar.

The Britons at this time, according to Cæsar and other Roman historians, were very numerous, and had their country well stocked with cattle: their houses resembled those of the Gauls; and they used copper or iron plates, weighed by a certain standard, instead of money: their towns were a confused parcel of huts, placed at a small distance from one another, generally in the middle of a wood, to which all the avenues were slightly guarded with ramparts of earth, or with trees. All the nations were in a state of the most wretched barbarism, even when compared with the barbarous Gauls on the continent.

The use of clothes was scarcely known in the island. Only the inhabitants of the southern coast covered their nakedness with the skins of beasts; and this rather to avoid giving offence to the strangers who came to trade with them, than out of any principle of decency. It was a general custom among the Britons to paint their bodies with the juice of woad; but whether this was designed as ornament, or for any other purpose, is not known: they shaved their beards, all except their upper lip, and wore long hair: they also had their wives in common, a custom which made them detestable to all other nations.

The arms of the Britons were a sword, a short lance, and a shield. Breast-plates and helmets they looked upon rather to be incumbrances, and therefore made no use of them: they usually fought in chariots, some of which are armed with scythes at the wheels; they were fierce and cruel, and exceedingly blood-thirsty. When driven to distress, they could subsist themselves even on the bark and roots of trees; and Dio Cassius tells us, that they had ready, on all occasions, a certain kind of food, of which, if they took but the quantity of a bean, they were not troubled with hunger or thirst for a considerable time after. The southern nations, however, were somewhat more civilized; and the Cantii, or inhabitants of Kent, more so than any of the rest.

All the British nations at this time were very brave and resolute: they proved therefore, very formidable enemies to the Romans; but the same dissensions which had taught them the art of war, also prevented them from uniting in the defence of their country.

Notwithstanding all the barbarism of the antient Britons, it is pretty certain they were acquainted with commerce, for several centuries before the Christian era. The Phoenicians visited the coast of Cornwall for tin, with which that county has ever abounded, they must, therefore, have either formed settlements for the purpose of working mines, or the natives could not have been ignorant of the nature of metals.

From the Phoenicians, or Greeks, who succeeded them in this trade, the Scilly islands received the appellation of Cassiterides, or islands of tin. Strabo says, they were ten in number, lying close together, of which only one was inhabited: the people led a wandering life, lived upon the produce of the cattle, wore an under garment, which reached down to their ancles, and over that another, both of the same colour, which was black, girt round a little below the breast with a girdle, and walked with staves in their hands.

The riches of these islands were tin and lead, which, as well as the skins of their cattle, they exchanged with foreign merchants, that is, the Phœnicians from Cadiz, for earthen ware, salt, and utensils made of brass. These islands are represented to have been in circumstances very different from their present, since an author of great antiquity seems to include a part at least of Cornwall amongst these islands; or rather he suggests that they were not perfect islands, except at full sea, but that at ebb, the inhabitants passed from one to another upon the sands, and that they even transported their tin in large square blocks upon carriages, from one island to another. He farther takes notice, that such as inhabited about Belerium (the Land's End) were in their conversation with strangers remarkably civil and courteous. Other antient writers style these islands Hesperides, from their western situation, and Œstrymnides, asserting that the land was extremely fertile, as well as full of mines; and that the people, though very brave, were entirely addicted to commerce, and boldly passed the seas in their leather boats.

It appears probable that the Britons, like the Gauls, consisted chiefly of three different ranks, the common people, the gentry, and the druids.

The common people were accounted nearly in the place of servants, dared to undertake nothing of their own authority, and were present at no councils. Many of them, when they were oppressed, either with debts or the weight of taxes, or the injuries of

the powerful, sold themselves into servitude to the nobles, who possessed over them the same dominion as masters had over their servants.

The gentry or nobility, were constantly trained to war; and such of them as were the most distinguished for birth and riches, had the greatest number of followers and dependants.

The druids were the first and most distinguished order among the Gauls and Britons; they were chosen out of the best families; and the honours of their birth, joined with those of their function, procured them the highest veneration among the people; they were versed in astrology, geometry, natural philosophy, politics, and geography; they were the interpreters of religion, and the judges of all affairs indifferently. Whoever refused obedience to them was declared impious and accursed. We know but little as to their peculiar doctrines; only that they believed the immortality of the soul, and, as is generally also supposed, the metempsychosis; though a late author makes it appear highly probable, they did not believe this last, at least not in the sense of the Pythagoreans.

The chief settlement of the druids in Britain was in the isle of Anglesey, the antient Mona, which they might choose for this purpose, as it is well stored with spacious groves of their favourite oak: they were divided into several classes or branches, viz. the vacerri, bardi, eubages, semnothii, or semnothei, and saronidæ. The vacerri are held to have been the priests; the bardi, the poets; the eubages, the augurers; and the saronidæ, the civil judges and instructors of youth. As to the semnothei, who are said to have been immediately devoted to the service of religion, it is probable they were the same with the vacerri. Strabo, however, and Picard after him, in his Celtopædia, do not comprehend all these different orders under the denomination of druids, as species under their genus, or parts under the whole; but make them quite different conditions or orders. Strabo, in effect only distinguishes three kinds; bardi, vates, and druids: the bardi were the poets; the vates (apparently the same with the vacerri) were the priests and naturalists; and the druids, besides the study of nature, applied themselves likewise to morality.

Diogenes Laertius assures us, in his Prologue, that the druids were the same among the Britons with the sophi or philosophers among the Greeks; the magi among the Persians; the gymnosophists among the Indians; and the chaldeans among the Assyrians.

Their garments were remarkably long; and, when employed in religious ceremonies, they always wore a white surplice; they generally carried a wand in their hands, and wore a kind of ornament, enchased in gold, about their necks, called the druid's egg; their necks were likewise decorated with gold chains, and their hands and arms with bracelets; they wore their hair very short, and their beards remarkably long.

The druids had one chief, or archdruid, in every nation, who acted as high-priest, or pontifex maximus. He had absolute authority over the rest; and commanded, decreed, punished, &c. at pleasure. At his death he was succeeded by the most considerable among his survivors; and, if there were several pretenders, the matter was ended by an election, or else put to the decision of arms.

The druids, we have observed were in the highest esteem; they presided at sacrifices, and other ceremonies; and had the direction of every thing in religion; the British and Gaulish youth flocked to them in crowds to be instructed by them; the children of the nobility, Mela tells us, they retired with into caves, or the most desolate parts of forests, and kept them there sometimes for twenty years under their discipline. Besides the immortality and metempsychosis, they were here instructed in the motion of the heavens, and the course of the stars; the magnitude of the heavens and the earth; the nature of things, the power and wisdom of the God, &c.: they preserved the memory and actions of great men in their verses, which they never allowed to be written down, but made their pupils get by heart. In their common course of learning, they are said to have taught them twenty-four thousand such verses. By this means their doctrines appeared more mysterious, by being unknown to all but themselves; and having no books to recur to, they were the more careful to fix them in their memory.

They worshipped the Supreme Being under the name of Esus, or Hesus, and the symbol of the oak; and had no other temple than a wood or a grove, where all their religious rites were performed. Nor was any person admitted to enter that sacred recess, unless he carried with him a chain, in token of his absolute dependence on the Deity. Indeed, their whole religion originally consisted in acknowledging that the Supreme Being, who made his abode in these sacred groves, governed the universe; and that every creature ought to obey his laws, and pay him divine homage.

They considered the oak as the emblem, or rather the peculiar residence of the Almighty; and accordingly chaplets of it were worn both by the druids and people in their religious ceremonies, the altars were strewed with its leaves, and encircled with its branches; the fruit of it, especially the misletoe, was thought to contain a divine virtue, and to be the peculiar gift of heaven It was therefore sought for on the sixth day of the moon with the greatest earnestness and anxiety; and when found, was hailed with such raptures of joy, as almost exceeds imagination to conceive. As soon as the druids were informed of this fortunate discovery, they prepared every thing ready for the sacrifice under the oak, to which they fastened two white bulls by the horns; then the archdruid, attended by a prodigious number of people, ascended the tree, dressed in white; and with a consecrated golden knife, or pruning hook, cropped the misletoe, which he received in his sagum or robe, amidst the rapturous exclamations of the people. Having secured this sacred plant, he descended the tree; the bulls were sacrificed, and the Deity invoked to bless his own gift, and render it efficacious in those distempers in which it should be administered.

The consecrated groves in which they performed their religious rites, were fenced round with stones, to prevent any persons entering between the trees, except through the passages left open for that purpose, and which were guarded by some inferior druids, to prevent any stranger from intruding into their mysteries. These groves were of different forms; some quite circular, others oblong, and more or less capacious, as the votaries in the districts to which they belonged were more or less numerous: the area in the centre of the grove was encompassed with several rows of large oaks, set very close toge

ther. Within this large circle were several smaller ones, surrounded with large stones; and near the centre of these smaller circles were stones of a prodigious size and convenient height, on which the victims were slain and offered. Each of these being a kind of altar, was surrounded with another row of stones, the use of which cannot now be known, unless they were intended as cinctures to keep the people at a convenient distance from the officiating priest.

Suetonius, in his life of Claudius, assures us the druids sacrificed men; and Mercury is said to be the god to whom they offered these victims. Diodorus Siculus observes it was only upon extraordinary occasions they made such offerings; as, to consult what measures to take, to learn what should befal them, &c. by the fall of the victim, the tearing of his members, and the manner of his blood gushing out. Augustus condemned the custom, and Tiberius and Claudius punished and abolished it.

We learn from Cæsar, that the druids were the judges and arbiters of all differences and disputes, both public and private; they took cognizance of murders, inheritances, boundaries, and limits; and decreed rewards and punishments. Such as disobeyed their decisions they excommunicated, which was their principal punishment; the criminal being hereby excluded from all public assemblies, and avoided by all the world; so that nobody durst speak to him, for fear of being polluted. Strabo observes, they had sometimes interest and authority enough to stop armies upon the point of engaging, and accommodate their differences.

The opinions which, it is said, the druids of Gaul and Britain entertained of their anguinum or serpent's egg, both as a charm and as a medicine, are romantic and extravagant in a very high degree: this extraordinary egg was formed, as they pretended, by a great number of serpents interwoven and twined together; and when it was formed, it was raised up in the air by the hissing of these serpents, and was to be catched in a clean white cloth, before it fell to the ground: the person who catched it was obliged to mount a swift horse, and to ride away at full speed to escape from the serpents, who pursued him with great rage, until they were stopped by some river. The way of making trial of the genuineness of this egg was no less extraordinary. It was to be enchased in gold, and thrown into a river, and if it was genuine, it would swim against the stream. "I have seen (says Pliny) that egg; it is about the bigness of a moderate apple, its shell is a cartilaginous incrustation, full of little cavities, such as are on the legs of the polypus: it is the insignia, or badge of distinction of the druids." The virtues which they ascribed to this egg were many and wonderful. It was particularly efficacious to render those who carried it about with them superior to their adversaries in all disputes, and to procure them the favours and friendship of great men.

"In Britain (says Pliny) the magic arts are cultivated with such astonishing success, and so many ceremonies at this day, that the Britons seem to be capable of instructing even the Persians themselves in those arts; they pretend to discover the designs and purposes of the gods: the eubates or vates, in particular, investigate and display the most sublime secrets of nature; and by auspices and sacrifices, they foretel future events." They were so famous for the supposed veracity of their predictions, that they were consulted on all important occasion by their own princes and great men, and even

sometimes by the Roman emperors. Nor is it very difficult to account for all this: the druids finding that the reputation of their magical and prophetical powers contributed not a little to the advancement of their wealth and influence, they endeavoured, no doubt, to strengthen and establish it by all their art and cunning; their knowledge of natural philosophy and mechanics enabled them to execute such works, and to exhibit such appearances, or to make the world believe they did exhibit them, as were sufficient to gain them the character of great magicians; they had more knowledge than their countrymen and cotemporaries, but had not so much virtue as to resist the temptation of imposing upon their ignorance, to their own advantage.

Let us now contemplate some of those remains, which are considered as affording ample testimony to the architectural knowledge and ability of the druids.

Stonehenge, a celebrated monument of antiquity, stands in the middle of a flat area, near the summit of a hill, six miles distant from Salisbury. It is inclosed by a circular double bank and ditch, near 30 feet broad, after crossing which we ascend 30 yards before we reach the work. The whole fabric consisted of two circles and two ovals; the outer circle is about 108 feet diameter, consisting, when entire of 60 stones, 30 uprights, and 30 imposts, of which remain only 24 uprights, 17 standing and seven down, three feet and a half asunder, and eight imposts; eleven uprights have their five imposts on them by the grand entrance; these stones are from 13 to 20 feet high: the lesser circle is somewhat more than eight feet from the inside of the outer one, and consisted of 40 lesser stones, the highest six feet, of which only 19 remain, and only 11 standing; the walk between these two circles is 300 feet in circumference: the adytum or cell is an oval formed of 10 stones, from 16 to 22 feet high, in pairs, with imposts, which Dr. Stukeley calls trilithons, and above 30 feet high, rising in height as they go round, and each pair separate, and not connected as the outer pair; the highest eight feet. Within these are 19 more smaller single stones, of which only six are standing. At the upper end of the adytum is the altar, a large slab of blue coarse marble, 20 inches thick, 16 feet long, and four broad; pressed down by the weight of the vast stones that have fallen upon it: the whole number of stones, uprights, imposts, and altar, is exactly 140: the stones are far from being artificial, but were most probably brought from those called the grey weathers, on Marlborough downs, 15 or 16 miles off; and if tried with a tool, they appear of the same hardness, grain, and colour, generally reddish. The heads of oxen, deer, and other beasts, have been found, on digging in and about Stonehenge; and human bones in the circumjacent barrows. There are three entrances from the plain to this structure; the most considerable of which is from the north-east, and at each of them were raised on the outside of the trench two huge stones, with two smaller within, parallel to them.

It has been long a dispute among the learned, by what nation, and for what purpose, these enormous stones were collected and arranged. The first account of this structure we meet with is in Geoffrey of Monmouth, who, in the reign of king Stephen, wrote the history of the Britons in Latin. He tells us, that it was erected by the counsel of Merlin, the British enchanter, at the command of Aurelius Ambrosius, the last British king, in memory of 460 Britons, who were murdered by Hengist the Saxon. The next account is that of Polydore Virgil, who says that the Britons erected this as a sepulchral monument

of Aurelius Ambrosius. Others suppose it to have been a sepulchral monument of Boadicea, the famous British queen. Inigo Jones is of opinion, that it was a Roman temple; from a stone 16 feet long, and four broad, placed in an exact position to the eastward, altar-fashion. Mr. Charlton attributed it to the Danes, who were two years masters of Wiltshire; a tin tablet, on which were some unknown characters, supposed to be Punic, was digged up near it in the reign of Henry VIII. but is lost; probably that might have given some information respecting its founders. Its common name, Stonehenge, is Saxon, and signifies a "stone gallows," to which those stones, having transverse imposts, bear some resemblance. It is also called in Welsh choir gour, or "the giant's dance."

Mr. Grose thinks that Dr. Stukely has completely proved this structure to have been a British temple, in which the druids officiated. He supposes it to have been the metropolitan temple of Great Britain, and translates the words choir gour, "the great choir, or temple." The learned Mr. Bryant is of opinion, that it was erected by a colony of Cuthites, probably before the times of the druids; because it was usual with them to place one vast stone upon another for a religious memorial; and those they often placed so equably, that even a breath of wind would make them vibrate. Of such stones, one remains at this day in the pile of Stonehenge. The antients distinguished stones erected with a religious view, by the name of amber; by which was signified any thing solar and divine: the Grecians called them petrai ambrosiai. Stonehenge, according to Mr. Bryant, is composed of these amber stones; hence the next town is denominated Ambrosbury; not from a Roman Ambrosius, for no such person ever existed, but from the ambrosiæ petræ, in whose vicinity it stood. Some of these were rocking stones; and there was a wonderful monument of this sort near Penzance in Cornwall, which still retains the name of main-amber, or the sacred stones. It was eleven feet by six, and four high, and so nicely poised upon another stone, that a little child could move it. Shrubsall, Cromwell's governor of Pendennis, with much labour caused it to be undermined, to the great grief of the country: there are some marks of the tool on it, and, by its quadrangular shape, it was probably dedicated to Mercury; there is also a remarkable stone of the same kind in the island of St. Agnes, in Scilly. The under rock is ten feet six inches high, 47 feet round the middle, and touches the ground with no more than half its base: the upper rock rests on one point only, and is so nicely balanced that two or three men with a pole can move it. It is eight feet six inches high, and 47 feet in circumference. On the top there is a bason hollowed out, three feet eleven inches in diameter at a medium, but wider at the brim, and three feet deep. From the globular shape of this upper stone, it is highly probable it was rounded by human art, and perhaps even placed on its pedestal by human strength. That the rocking stones are monuments erected by the druids cannot be doubted, but tradition has not informed us for what purpose they were intended.

Many antient monuments of druidism still remain in the isle of Anglesey. At Trer Dryw, or the habitation of the archdruid, are several mutilated remains, which have been described by Mr. Rowlands. His Bryn Gwyn, or Brein Gwyn, or royal tribunal, is a circular hollow, of 180 feet in diameter, surrounded by an immense agger of earth

and stones, evidently brought from some other place; there not being any mark of their being taken from the spot. It has only a single entrance. This is supposed to have been the grand consistory of the druidical administration. Not far from it was one of the Gorseddau, now in a manner dispersed. but which once consisted of a great heap of copped stones, on which sat aloft a druid, instructing the surrounding people concerning the motions of the stars, the magnitude of the earth and celestial bodies, the nature of things, and the perfections of their gods. Here were also the relics of a circle of stones, with the cromlech in the midst, but all extremely imperfect; the cromlech is a huge, broad, flat stone, raised upon other stones, set up on end for that purpose: two of the stones are very large; one, which serves at present as part of the end of a house, is 12 feet seven inches high, and eight feet broad: and another 11 feet high, and 23 feet in girth; some lesser stones yet remain: this circle, when complete, was one of the temples of the druids, in which their religions rites were performed. It is the conjecture of Mr. Rowlands, that the whole of those remains were surrounded with a circle of oaks, and formed a deep and sacred grove; for they are said by Pliny to choose for themselves groves of oaks, and never to perform any sacred office in which the leaf of the oak was not some way or other employed. Near this is Caer Leb, or the moted entrenchment; of a square form, with a double rampart, and broad ditch intervening, and a lesser on the outside. Within are foundations of circular and of square buildings: this Mr. Rowlands supposes to have been the residence of the archdruid, and to have given the name Tre'r Dryw to the township in which it stands. At Trev Wry are several faint traces of circles of stones, and other vestiges of buildings; but all so delapidated, or hid in weeds, as to be almost formless. Bod-drudan, or the habitation of the druids, Tre'r Beirdd, or that of the bard, and Bodowyr, or that of the priests, are all of them hamlets, nearly surrounding the seat of the chief druids, composing the essential part of his suit. At the last is a thick cromlech, resting on three stones.

These several monuments of British architecture abundantly prove that the druids, under whose direction these works were carried on, were no mean proficients in mechanical knowledge. We can hardly suppose that it was possible to cut those prodigious masses of stone (some of them above forty tons in weight) without wedges, or to raise them out of the quarry without levers. But it certainly required still greater knowledge of the mechanical powers, and of the method of applying them, to transport those huge stones from the quarry to the places of their destination; to erect the perpendicular pillar, and to elevate the imposts to the tops of these pillars; that they were acquainted with the principles and use of the balance, is apparent from those rocking stones which are still remaining, and which we have already described: that the antient Britons understood the construction and use of wheels, the great number of their war-chariots, and other wheel carriages, is a sufficient proof; and that they knew how to combine them together and with the other mechanical powers, so as to form machines capable of raising and transporting very heavy weights, we have good reason to believe. In a word, if the British druids were wholly ignorant of the principles and use of any of the mechanical powers, it was probably of the screw, though even of this we cannot be certain.

ANTIENT BRITAIN.

The brief account of the antient Britons which is here submitted to the attention of the reader, can scarcely fail to excite in his mind a train of important reflections. We see in them an instance of a people destitute of almost all the comforts of civilized life, yet by no means deficient in scientific information; possessed of many just opinions respecting the attributes of Deity, and yet presuming to worship him with the most bloody and abominable rites. Whoever looks at this picture, may be easily convinced of the infinite advantages we have received from the religion of Jesus, and at the same time discover the source from whence many of those superstitions have been derived, by which that religion has been dishonoured and obscured.

CHAPTER III.

BRITAIN SUBJECT TO THE ROMANS.——*Cæsar's invasion. Caractacus. Boadicea. Agricula. Adrian. Antoninus. Severus. Usurpers. Romans abandon the island. Effects of their government.*

THE authentic history of Britain commences with the first invasion of Cæsar, which took place 53 years before Christ. Cæsar, who was at that time the Roman governor in Gaul, having pushed his conquests to the opposite shores of France and Flanders, determined to cross the channel in order to annex this island to the empire. and so enlarge the Roman dominions, and cut off the supplies which the Gauls were accustomed to derive from our countrymen.

As soon as the Britons perceived Cæsar's fleet approaching, a number of cavalry and chariots were dispatched to oppose his landing, while a considerable body of infantry hastened after. What chiefly embarrassed the Romans in their attempt to land, was the largeness of their ships, which required a considerable depth of water: the soldiers therefore, were obliged to leap into the sea, while loaded with their armour; and at the same time to encounter the enemy, who were quite disengaged, as they either stood on dry ground, or waded but a little way into the water. Cæsar, perceiving this disadvantage, ordered his galleys to advance, with their broadsides towards the shore, in order to drive the Britons from the water-side, with their slings and arrows. On this, the Britons, surprised at the galleys, a sort of shipping they had never before seen, began to give ground.

The fight, however, continued for some time, greatly to the disadvantage of the Romans; till at last, Cæsar, observing the distress of his men, caused several boats to be manned, and sent them to the assistance of those who were most exposed to the enemy's assault; the Romans then soon got the better of the undisciplined barbarians, however brave, and made good their landing; but they were unable to pursue the enemy for want of cavalry, which had not yet arrived.

The Britons were so disheartened with this bad success, that they immediately sent ambassadors to sue for peace; which was granted on condition of their delivering a certain number of hostages for their fidelity. Part of these they brought immediately; and promised to return in a few days with the rest, who, they said, lived at some distance. But, in the mean time, the 18 transports which carried Cæsar's cavalry being driven back by a violent storm, and the fleet which lay in the road being greatly damaged by the same, the Britons thought proper to break their engagements. Having, therefore, privately assembled their forces, they fell unexpectedly on the seventh legion, while at a distance from the rest, and busied in foraging. Cæsar, being apprised of their danger, hastened to their assistance with two cohorts, and at last repulsed the enemy. This, however, proved only a temporary deliverance; for the Britons, thinking it would be

possible for them to cut off all the Romans at once, dispatched messengers to inform several of the neighbouring nations of the weakness of the enemy's forces, and the happy opportunity that offered itself of destroying all these invaders at one blow. On this, they drew together a great body of horse and foot, which boldly advanced to the Roman entrenchments. But Cæsar came out to meet them; and the undisciplined Britons being by no means able to cope with the Romans, were put to flight with great slaughter. Having burnt several towns and villages, the victors returned to their camp, where they were soon followed by new deputies from the Britons. Cæsar being in want of horse, and afraid lest another storm should destroy the remainder of his fleet, granted them peace, on condition of their sending him double the number of hostages into Gaul which they had before promised: the same night he set sail, and soon arrived safe in Gaul.

The Britons no sooner perceived the Romans gone, than, as before, they broke through their engagements. Of all the states who had promised to send hostages, only two performed their promises; and this neglect so provoked Cæsar, that he determined to return the year following with a far greater force. Having, therefore, caused his old vessels to be refitted, and a great many new ones to be built, he arrived off the coast of Britain, with a fleet of 600 ships and 28 galleys: the Britons made no opposition to his landing; but Cæsar, getting intelligence that an army was assembled at no great distance, marched in quest of them. He found them encamped on the banks of a river, supposed to be the Stour, about 12 miles distant from the place where he had landed: they attempted to oppose his passage; but being briskly attacked by the Roman cavalry, they were obliged to retire into a wood, all the avenues of which were blocked up by trees cut down for that purpose. This fortification, however, proved insufficient to protect them; the seventh legion having cast themselves into a testudo, and thrown up a mount against their works, drove them from their asylum; but as the day was far spent, a pursuit was not thought adviseable.

Next morning Cæsar, with the greatest part of his army, which he divided into three bodies, marched out in quest of the enemy. But when he was already come in sight of their rear, he was overtaken by messengers, who informed him, that his fleet was greatly damaged by a violent storm which had happened the preceding night. This put an end to the pursuit for that time; but Cæsar having employed all the carpenters he had with him, and sent for others from Gaul, in order to repair the damage, resolved to prevent misfortunes of this kind for the future. He therefore drew all the ships ashore, and inclosed them within the fortifications of his camp: this arduous undertaking employed his whole army for ten days; after which he again set out in quest of the enemy.

The Britons had made the best use they could of the respite afforded them by the storm: they were headed by Cassibelaunus, king of the Trinobantes. He had formerly made war upon his neighbours; and having rendered himself terrible to them, was looked upon to be the most proper person for leading them against the common enemy; and as several states had now joined their forces, the British army was very numerous. Their cavalry and chariots attacked the Roman army while on their march; but were repulsed with loss, and driven into the woods: the Romans pursued them too eagerly,

and thus lost some of their own men; which encouraged the Britons to make another fierce attack; but in this also they were finally unsuccessful, and obliged to retire, though their loss seems not to have been great.

Next day the Britons suddenly attacked the Roman legions as they were foraging; but meeting with a vigorous resistance, they soon betook themselves to flight; the Romans pursued them so closely, that having neither time to rally, nor get down from their chariots, according to custom, great numbers of them were cut in pieces; and this overthrow had such an effect upon the auxiliaries of Cassibelaunus, that all of them abandoned him; nor did the Britons ever afterwards engage Cæsar with united forces.

Cæsar, pursuing his victory, marched towards the Thames, with a design to cross that river, and enter the territories of the Trinobantes. The river was fordable only at one place, and that not without great difficulty; but when he came to it, he found the enemy's forces drawn up in a considerable body on the opposite bank, which was fortified with sharp stakes; they had likewise driven many stakes of the same kind into the bottom of the river, the tops of which were covered with water: these stakes are visible to this day, at a place called Walton in Surry; they are made of oak; and though they have been so long in the water, are as hard as Brazil, and as black as jet; and have sometimes been pulled out, in order to make knife handles of them.

Cæsar was not at all dismayed at these difficulties, which he had intelligence of by prisoners and deserters. He ordered the cavalry to enter first, and the foot to follow. His orders were obeyed, and the soldiers advanced with such resolution, that though the infantry were up to the chin in water, the enemy, unable to sustain their assault, abandoned the bank and fled. After this defeat, Cassibelaunus himself despaired of success, and therefore dismissed all his forces, except about 4000 chariots, with which he observed the motions of the Romans; harrassing them, by cutting off straggling parties, &c. This, however, was not sufficient to keep up the spirits of his countrymen. On the contrary, they deposed him from the kingdom, and chose Mandrubratius, whose father had been murdered by Cassibelaunus, who thereupon usurped the kingdom: the young prince had fled to Cæsar, who gave him protection; and the Trinobantes now offered to submit to the conqueror, provided he would give them Mandrubratius for their king.

Cæsar readily complied with the request of the Trinobantes, upon their sending him 40 hostages; and the submission of the Trinobantes was soon followed by that of other states and tribes; for each of the 17 nations already mentioned were composed of several different tribes, of which no particular account can be given. Cæsar next marched to Verulamium, or Canterbury, which was Cassibelaunus's capital, and which he still kept possession of; but though the place was strongly fortified both by nature and art, the Britons were unable to bear the assault of the Romans, and therefore fled out at one of the avenues. Many were taken as they attempted to make their escape, and many more cut in pieces.

After this loss, Cassibelaunus, as his last resource, found means to draw into confederacy with him four kings of the Cantii. But though Cæsar gave them the title of

kings, it is probable that they were only petty princes, tributary to the king of that nation; their names were Cingetoris, Corvilcus, Taximagulus, and Segenax. These, having raised what forces they could, attacked the camp where the ships were laid up; but the Romans having made a sally, repulsed them with great slaughter, and then returned to their trenches without any loss; after which, Cassibelaunus thought proper to submit to the conqueror. As the summer was already far spent, Cæsar hearkened to his proposals. A peace was concluded on the following terms, viz. that the Britons should pay annual tribute to the Romans; that Cassibelaunus should leave Mandubratius in peaceable possession of his dominions; that he should not molest the Trinobantes; and that he should deliver a certain number of hostages. These terms being agreed to, Cæsar set sail with his whole fleet from Britain, to which he never returned.

Such is the account given by Cæsar himself of his two expeditions into Britain; but other authors have spoken very doubtfully of his victories in this island. Dio Cassius tells us, that the Britons utterly defeated the Roman infantry, but were at last put in disorder by their cavalry. Horace and Tibullus, in many parts of their works, speak of the Britons as a people not yet conquered. Tacitus says, that Cæsar rather shewed the Romans the way to Britain, than put them in possession of it; and Lucan tells us plainly, that Cæsar turned his back to the Britons and fled: this last, however, considering the consummate military genius of Cæsar, is by no means probable; that he left Britain during the winter, was, in all probability, to prevent insurrections among the Gauls, which might very readily have happened; and that he did not return to finish his conquest can be no wonder, seeing his ambition would certainly be more gratified by being called emperor of Rome than conqueror of Britain.

In the reign of Claudius, the Romans set about reducing them to subjection in good earnest: the occasion of this war is related by Dio Cassius as follows. "Cunobelinus, the third in succession from Cassibelaunus, being dead, his two sons, Togodumnus and Caractacus, succeeded to the throne; but whether they reigned jointly or separately is not known. In this reign one Bericus, of whom we also know very little, being driven out of the island for attempting to raise a sedition, fled with some of his partizans to Rome, and persuaded Claudius to make war on his countrymen. The Britons, on the other hand, resented the behaviour of Claudius in receiving these vagabonds, and therefore prohibited all intercourse with the Romans. A much smaller offence than this would have been sufficient at any time to provoke the haughty nation to declare war.

An army was therefore immediately ordered into Britain, under the command of Plautius, prætor in Gaul. The soldiers at first refused to embark, from a superstitious notion, that they were going to be sent without the compass of the world; and this mutiny being revealed to the Britons, they did not make the necessary preparations for their own defence: the Roman soldiers were soon brought to a sense of their duty, and set out from three different ports, in order to land at three different places in Britain at once. Being driven back by contrary winds, their fears began to return, but they resumed their courage on the appearance of a meteor shooting from the east, which they imagined was sent from heaven to direct their course: they landed without opposition; and the

Britons, not having drawn together a sufficient army, kept in small bodies behind their marshes, and in woods, in order to spin out the war till winter; when they imagined Plautius would, like Cæsar, speed to Gaul. The Roman general marched first in quest of the two kings, Togodumnus and Caractacus; both of whom he found out and defeated, one after another. He then reduced part of the Dobuni, at that time subject to the Cattieudelani; and leaving a garrison to keep them in awe, he advanced to a river where the Britons lay carelessly encamped, supposing that the Romans could not pass it without a bridge. But the Germans in the Roman army had been accustomed to swim across the strongest currents in their heavy armour: they therefore passed the river first; and having, according to their orders, fallen only upon the enemy's horses which drew their chariots, these formidable machines were rendered entirely useless; and the Britons were put to flight as soon as another part of the forces could pass the river. The Britons were not disheartened with this defeat, but engaged the Romans next day with great bravery. Victory continued long doubtful; but at length the Romans prevailed, and the Britons were forced to take themselves to flight; this battle is thought to have been fought on the banks of the Severn. From thence the Britons fled to the mouth of the Thames: they were closely pursued by the Romans; but the latter being unacquainted with the flats and shallows of the river, were often in great danger: the Germans, however, crossed by swimming, as before, and the rest on a bridge somewhat farther up the river; so that the Britons were in a short time surrounded on all sides, and great numbers of them cut in pieces. Many of the Romans, also pursuing the fugitives with two great eagerness, were lost in marshes. In one of these battles Togodumnus was killed; but the Britons were so far fom being disheartened, that they shewed more eagerness than ever to oppose the Romans, in order to revenge his death.

Plautius, therefore, did not think proper to penetrate farther into the country, but contented himself with putting garrisons in the places he had already conquered. He then wrote to the emperor himself, who no sooner received an account of his success, than he set out for Britain; where having landed after a short voyage, he joined Plautius on the banks of the Thames. Soon after the arrival of Claudius, the Romans passed the Thames, attacked the British army, and totally defeated it: the consequence of this was the taking of Cunobelinus's capital, and the submission of several of the neighbouring states. The emperor, however, did not make a long stay in the island, but left Plautius to pursue his conquests: this he did with such success, that, on his return to Rome, he was met without the gates by the emperor himself, who, at his solemn entry, gave him the right hand. The Britons seem to have made a very obstinate resistance to the Roman arms about this time. Vespasian, who was afterwards emperor, is said to have fought 30 battles with them; and the exploits of Titus, his son, are also much celebrated by the Roman historians.

In the ninth year of Claudius, P. Ostorius Scapula was sent into Britain. By far the greater part of the 17 nations, formerly mentioned, were at this time unconquered. Some of these had broken into the Roman territories, but Ostorius falling unexpectedly upon them, put great numbers to the sword, and dispersed the rest. To prevent them for the

future from making inroads into the territories of the Romans or their allies, he built several forts on the Severn, the Avon, and the Nen, reducing the country south of these rivers to a Roman province: this so highly offended the Iceni, that, being joined by the neighbouring nations, they raised a considerable army, and encamped in an advantageous situation, in order to prevent the Romans from penetrating farther into the island. Ostorius, however, soon advanced against them; the Romans, as usual, got the victory, and the enemy were pursued with great slaughter. The Roman general then, having quelled an insurrection among the Brigantes, led his army against the Silures: they were headed by their king Caractacus, a most renowned warrior. He shewed his military talents by choosing a very advantageous place for engaging the enemy. Tacitus tells us, "it was on the ridge of an exceeding steep mountain; and where the sides of it was inclining, and accessible, he reared walls of stones for a rampart. At the foot of a mountain flowed a river, dangerous to be forded, and an army of men guarded his entrenchments." This hill is thought to be one called Caer Caradoc, in Shropshire, situated near the conflux of the rivers Colun and Teme, and where the remains of antient entrenchments are still visible On the approach of the enemy, Caractacus drew up his troops in order of battle. animating them with the following speech, according to Tacitus: "That from this day, and this battle, they must date their liberty rescued, or their slavery for ever established. He then invoked the shades of those heroes who had expelled Cæsar, the dictator; those brave men by whose valour they still enjoyed freedom from Roman tribute and taxes, and by which, their wives and children were as yet preserved from prostitution."

The whole army then took a solemn oath either to conquer or die, and prepared for the charge with the most terrible shouts. Osterius was somewhat dismayed, when he considered the uncommon fierceness of the enemy, and the other difficulties which he had to encounter. He led on his men, however, to the charge; and the Romans were attended with their usual good fortune: the Britons were put to flight. Vast numbers fell on the field of battle, and in the pursuit, and many more were taken prisoners. Among the latter were the wife, the daughter, and the brother of Caractacus; the unfortunate prince himself fled to Cartismunda, queen of the Brigantes, by whom he was delivered up to the Roman general, who sent him in chains to Rome. Caractacus bore his misfortunes with magnanimity; and when he came before the emperor, 'tis said by Tacitus, addressed him in the following terms. "If my moderation in prosperity, O Claudius! had been as conspicuous as my birth and fortune, I should now have entered this city as a friend, and not as a prisoner; nor would you have disdained the friendship of a prince descended from such illustrious ancestors, and governing so many nations. My present condition, I own, is to you honourable, to me humiliating. I was lately possessed of subjects, horses, arms, and riches. Can you be surprised that I endeavoured to preserve them? If you, Romans, have a desire to arrive at universal monarchy, must all nations, to gratify you, tamely submit to servitude? If I had submitted without a struggle, how much would it have diminished the lustre of my fall, and of your victory? And now, if you resolve to put me to death, my story will soon be buried in oblivion; but if you think proper to preserve my life, I shall remain a lasting monument of your clemency."

This speech had such an effect upon Claudius, that he immediately pardoned Caractacus and his whole family, and commanded them to be set at liberty.

Some Scottish historians have claimed Caractacus as a countryman, but with little appearance of probability.

The Silures, notwithstanding this horrible blow, continued the war with great vigour, and gained considerable advantages over the Romans; which so much affected Ostorius, that he died of grief. He was succeeded by A. Didius, who restrained the excursions of the Silures, but was not able to restore Cartamunda, queen of the Brigantes, who had been deposed by her subjects. Didius was succeeded by Veranius, and he by Suetonius Paulinus, who reduced the island of Anglesey. The shore near Porthamel is famous, as being the place where he landed. His infantry passed over in flat-bottomed boats; his cavalry, partly by fording, and partly by swimming. On the shore (says Tacitus) there stood a motley army, in close array, and well armed; with women running wildly about in black attire, with disheveled hair, and, like the furies, brandishing their torches; surrounded by the druids, who lifted up their hands to heaven, and poured forth the most dreadful imprecations. The soldier stood astonished at the novelty of the sight. His limbs grew torpid, and he resigned his motionless body to every wound. At length, animated by their leader, and exhorting one another not to be intimidated by such a womanly and fanatic band, they displayed their ensigns, overthrew all that opposed them, and threw them into their own fires. After the battle, they placed garrisons in the towns, and cut down the groves, consecrated to the most horrid superstitions; for the Britons held it right to shed on their altars the blood of their captives, and to consult the gods by the inspection of human entrails.

But while Paulinus was employed in the conquest of this island, he was alarmed by the news of an almost universal revolt among the nations which had submitted to the Romans. The Britons, though conquered, had still a desire of returning to their former state of independence; and the Roman yoke became every day more unsupportable to them, through the insolence and oppressions of the Roman soldiers. The Britons had been long discontented, and were already in a very proper disposition for a revolt, when an event happened which kindled these discontents into an open flame. Prosutagus, king of the Iceni, a prince renowned for opulence and grandeur, had, by his last will and testament, left the Roman emperor joint heir with his two daughters, in hopes of obtaining his favour and protection by so great an obligation. But the event turned out very different. No sooner was he dead, than his houses and possessions were all plundered by the Roman soldiers: the queen Boadicea remonstrated against this injustice; but instead of obtaining any redress, she herself was publicly whipped, her daughters ravished, and all the relations of the late king reduced to slavery; the whole country also was plundered, and all the chiefs of the Iceni deprived of their possessions.

Boadicea was a woman of too haughty a spirit tamely to bear such indignities. She therefore persuaded the Iceni to take up arms, which they very readily did; then, being joined by the Trinobantes, and some other nations, they poured like a torrent on the Roman colonies. Every thing was destroyed with fire and sword; the ninth

legion, which had been left for the defence of the country, under Petilius Cerealis, was defeated, the infantry totally cut in pieces, and the commander himself, with the cavalry, escaped with the utmost difficulty. Suetonius, alarmed at this news, immediately left Anglesey, and marched with the greatest expedition to London. The inhabitants were overjoyed at his arrival, and used their utmost endeavours to detain him for their defence. But he refused to stay, and in a short time left the place, notwithstanding the intreaties of the inhabitants: the whole city lamented his departure; and they had reason.

Suetonius was scarce gone, when Boadicea with her Britons entered, and put all they found in it to the sword. None were taken prisoners, nor was any sex or age spared, and many were tortured in the most cruel manner. Seventy thousand persons are said to have perished on this occasion at London, and other Roman colonies. The Britons, now elated with success, assembled from all quarters in great numbers, so that Boadicea's army soon amounted to 230,000 men: they despised the Romans, and became so confident of victory, that they brought their wives and children along with them in waggons, to be spectators of the destruction of their enemies. The event was what might naturally have been expected from such an ill-judged confidence: the Britons were overthrown with most terrible slaughter, no fewer than 80,000 being killed in the battle and pursuit; while the Romans had not many wounded. Boadicea not able to survive so great a calamity, put an end to her life by poison. By this overthrow, the Britons, who had once been subdued, were thoroughly prevented from raising any more insurrections, and even those who had not yet submitted to the Roman yoke, seemed to be intimidated from making incursions into their dominions. Nothing remarkable, therefore, happened for some time. In the time of Vespasian, Petilius Cerealis being appointed governor of Britain, attacked the Brigantes, defeated them in several battles, and reduced great part of their country. He was succeeded by Julius Frontinus; who not only maintained the conquests of his predecessor, but reduced entirely the warlike nation of the Silures.

Frontinus was succeeded by the celebrated Cneius Julius Agricola, who completed the conquest of all the southern Britons. Just before the arrival of Agricola, the Ordovices had cut in pieces a band of horse stationed on their confines; after which the whole nation had taken arms. The summer was pretty far spent, and the Roman army was quite separated and dispersed, the soldiers having assured themselves of rest for the remaining part of the year. Agricola, however, was no sooner landed, than, having drawn together his legions, he marched against the enemy without delay. The Britons kept upon the ridges of the mountains; but Agricola led them in person up the ascents: the Romans were victorious; and such a terrible slaughter was made of the Britons, that almost the whole nation of Ordovices was cut off. Without giving the enemy time to recover from the terror which this overthrow had occasioned, Agricola resolved upon the immediate reduction of Anglesey, which had been lost by the revolt of Boadicea. Being destitute of ships, he detached a chosen body of auxiliaries, who knew the fords, and were accustomed to manage their arms and horses in the water. The Britons, who had expected a fleet and transports, were so terrified by the appearance of the Roman

forces on their island, that they immediately submitted, and Anglesey was once more restored to the Romans. With the conquest of Anglesey ended the first campaign of Agricola; and he employed the winter in reconciling the Britons to the Roman yoke. In this he met with such success, through his wise and equitable conduct, that the Britons, barbarous as they were, began to prefer a life of security and peace, to that independency which they had formerly enjoyed, and which continually exposed them to the tumults and calamities of war.

The succeeding campaigns of Agricola were attended with equal success; he not only subdued the 17 nations inhabiting England, but carried the Roman arms almost to the extremity of Scotland. He also caused his fleet to sail round the island, and discovered the Orcades, or Orkney islands, which had before been unknown to the rest of the world. His expedition took him up about six years, and was completed in the year of Christ 84. Had this commander been continued in Britain, it is probable that both Scotland and England would have been permanently subdued, but he was recalled by Domitian in the year 85, and we are then almost totally in the dark about the British affairs, till the reign of the emperor Adrian. During this interval, the Caledonians had taken arms, and not only refused subjection to the Roman power themselves, but ravaged the territories of the Britons, who continued faithful to them. Adrian, for what reason is not well known, abandoned to them the whole tract lying between the Tyne and the Forth. At the same time, in order to restrain them from making incursions into the Roman territories, he built a wall 80 miles in length, from the river Eden in Cumberland, to the Tyne in Northumberland.

He was succeeded by Antoninus Pius, in whose reign the Brigantes revolted; and the Caledonians, having in several places broken down the wall built by Adrian, began anew to ravage the Roman territories. Against them the emperor sent Lollius Urbicus, who reduced the Brigantes; and having defeated the northern nations, confined them in narrower bounds by a new wall, extending probably between the friths of Forth and Clyde.

From the time of Antoninus to that of Severus, the Roman dominions in Britain continued to be much infested by the inroads of the northern nations. That emperor divided Britain into two governments, the southern and northern; but the governor of the northern division was so harrassed by continual incursions of the Caledonians, that he was at length obliged to purchase a peace with money. The Caledonians kept the treaty for 15 years; after which, breaking into the Roman territories anew, they committed terrible ravages. Virius Lupus, the governor, not being in a condition to withstand them, acquainted the emperor with his distress, intreating him to send powerful and speedy supplies. Upon this, Severus resolved to put an end to the perpetual invasions of the enemy, by making a complete conquest of their country; for which purpose he set out for Britain, together with his two sons Caracalla and Geta, at the head of a numerous army. The Caledonians no sooner heard of his arrival, than they sent ambassadors, offering to conclude a peace upon honourable terms. But these the emperor detained till he was ready to take the field, and then dismissed them without granting their request. As soon as the season was fit for action, Severus marched against

the Caledonians, where he put all to fire and sword. He advanced even to the most northerly parts of the island; and though no battle was fought in this expedition, yet through the continual ambuscades of the enemy, and the inhospitable nature of the country, he is said to have lost 50,000 men. At last the Caledonians were obliged to sue for peace; which was granted them on condition of their yielding part of their country, and delivering up their arms. After this the emperor returned to York, leaving his son Caracalla to command the army, and finish the wall which had been begun between the friths of Forth and Clyde. But the emperor being taken ill at York, the Caledonians no sooner heard of his indisposition, than they again took up arms. This provoked Severus to such a degree, that he commanded his son Caracalla to enter their country anew with the whole army, and to put all he met to the sword, without distinction of sex or age. Before these orders, however, could be put into execution, his two sons having concluded a shameful peace with the Caledonians, returned to Rome.

About this time Fingal is supposed to have flourished, whose exploits are celebrated in the poems of Ossian.

A long chasm now takes place in the history of the Roman dominions in Britain. In the beginning of Dioclesian's reign, Carasius, a native of Gaul, passing over into Britain, took upon him the title of emperor, and was acknowledged by all the troops quartered here. He was, however, killed in a battle with one of Constantius's officers, after he had enjoyed the sovereignty for six or seven years.

Constantine the Great began his reign in this island; and returned soon after he had left it, probably with a design to put a stop to the daily incursions of the Caledonians. He altered the division of that part of Britain subject to the Romans. Severus had divided it only into two provinces; but Constantine increased the number to three: viz. Britannia Prima, Britannia Secunda, and Maxima Cæsariensis; and the last was afterwards divided into two, viz. Maxima Cæsariensis and Flavia Cæsariensis. The removal of the imperial court from Rome to Constantinople, which happened in the reign of Constantine, gave the northern nations an opportunity of making frequent incursions into the Roman provinces; the emperor having carried with him, first into Gaul, and then into the east, not only most of the Roman troops, but likewise the flower of the British youth. About the latter end of the reign of Constantius, son to Constantine the Great, the government of the province of Britain was committed to Julian, afterwards called the apostate. While he was in his winter quarters at Paris, he was informed that the Scots and Picts, about this time first distinguished by these names, had broken into the Roman territories, and committed every where dreadful ravages. Against them Julian dispatched a body of troops under the command of Lupicinius. He embarked from Boulogne in the depth of winter, but was no sooner arrived at London than he was recalled; the enemy having, probably, found means to appease Julian by their submissions.

Till the reign of Valentinian I. these nations still continued to infest the Roman territories in Britain, and had now reduced the country to a most deplorable condition by their continual ravages. Valentinian sent against them Theodosius, father to the emperor of that name. That general having divided his forces into several bodies, ad-

vanced against the enemy, who were roving up and down the country. The Scots and Picts were obliged to yield to the superior valour and discipline of the Romans. Great numbers were cut in pieces; they were forced to abandon all the booty and prisoners they had taken, and to retire beyond the friths of Forth and Clyde. Theodosius then entered London in triumph, and restored that city to its former splendour, which had suffered greatly by the former incursions of the northern Britons. To restrain them from breaking anew into the provinces, Theodosius built several forts or castles between the two friths; and having thus recovered all the country between Adrian's wall and the friths of Forth and Clyde, he formed of it a fifth province, which he called Valentia.

Though Britain was now reduced to a state of temporary tranquillity, yet, as the Roman empire was daily declining, it is not to be supposed that sufficient care could be taken to secure such a distant province. In the reign of the emperor Honorius, the provincial Britons found themselves annoyed, not only by the Scots and Picts, but also by the depredations of the Saxons, who began to commit ravages on the sea-coasts. By the care, however, of Stilicho, prime minister to Honorius, matters were once more settled, and a particular officer was appointed to guard the coast against the attempts of the Saxons, with the title of Count of the Saxon shore. But, not long after, the empire being over-run by barbarians, most of the Roman troops quartered in Britain were recalled, and the country left quite open to the attacks of the Scots and Picts. Upon this, the provincials expecting no more assistance from Honorius, resolved to set up an emperor of their own. Accordingly they invested with the imperial dignity one Mark, an officer of great credit among them. Him they murdered in a few days, and placed on the throne one Gratian, who underwent the fate of his predecessor, and was succeeded by Constantine, a common soldier, who was chosen merely for the sake of his name. He seems, however, to have been a man of some knowledge and experience in war. He drove the Scots and Picts beyond the limits of the Roman territories; but being elated with this success, he would now be satisfied with nothing less than the conquest of the whole Roman empire He therefore passed over into Gaul, and took with him not only the few Roman forces that had been left, but such of the provincial Britons as were most accustomed to arms. That unhappy people, being now left defenceless, were harrassed in the most cruel manner by their enemies, who broke into the country, and destroyed all with fire and sword. In this miserable situation they continued from the year 407, when the usurper Constantine passed over into Gaul, till the year 410. Having, during the last three years, frequently implored assistance from Rome, without receiving any, they now resolved to withdraw their allegiance from an empire which was no longer able to protect them. Honorius himself applauded their conduct; and advised them by letter to provide for their own safety, which was, in effect, an implicit resignation of the sovereignty of the island.

The provincial Britons now regained their liberty; but they had lost the martial spirit which had at first rendered them so formidable to the Romans. They seem, however, to have met with some success in their first enterprises; for Zosimus tells us, that they delivered their cities from the insults of a haughty enemy But being

at last overpowered, they were again obliged to have recourse to the Roman emperor, to whom they promised a most perfect submission, provided they were delivered from the hands of their merciless and implacable enemies. Honorius, touched with compassion, sent a legion to their relief. The Roman forces landed in Britain unexpectedly; and after having destroyed great numbers of the Scots and Picts, they drove them beyond the friths of Forth and Dunbritton. After this, they advised the natives to build a wall on the isthmus from sea to sea, and to re-assume their courage, and defend themselves from their enemies by their own valour: the Romans then quitted the country; being obliged to return, in order to repulse those barbarians who had broken into the empire from all quarters.

The Britons immediately set about building the wall, as they had been desired, with great alacrity. But as it was constructed only of turf, the Scots and Picts soon broke it down in several places; and pouring in upon the defenceless and effeminate provincials, committed more cruel ravages than ever. At last, after very many and grievous calamities, the latter sent ambassadors once more to Rome. These appeared with their garments rent, and dust on their heads; and at last prevailed on the emperor, by their earnest entreaties, to send another legion to their relief. The troops arrived in Britain before the enemy had the least knowledge of their having set sail; they were therefore quite unprepared for an attack, and roving up and down the country in the utmost disorder. The Romans made a terrible havock among them, and drove the remainder into their own country.

As Honorius had sent them not with any ambitious view of retaining the island in subjection, but merely out of compassion to the unhappy provincials, the Romans told them, they had now no farther assistance to expect from them. They informed them, that the legion must immediately return to the continent, to protect the empire from the barbarians, who had extended their ravages almost to every part of it; and therefore that they must take their last farewell of Britain, and totally abandon the island. After this declaration, Gallio, the commander of the Roman troops, exhorted the provincials to defend themselves, by fighting bravely for their country, wives, and children, and what ought to be dearer than life itself, their liberty; telling them at the same time, that their enemies were no stronger than themselves, provided they would but lay aside their fears, and exert their antient courage and resolution. That they might the better withstand the attacks of the enemy, he advised them to build a wall, not of turf, but of stone; offering to assist them with his soldiers, and to direct them himself in the execution. Upon this the Britons immediately fell to work, and with the assistance of the Romans, finished it in a short time. though it was no less than eight feet thick, and twelve feet in height. It is thought to have been built on the same place where Severus's wall formerly stood. Towers were also built at convenient distances on the east coast, to prevent the descents of the Saxons, and other barbarians that came from Germany. Gallio employed the rest of his time in teaching the provincials the art of war. He left them patterns of the Roman weapons, which he also taught them to make; and after many encouraging exhortations, he took his last farewell of Britain, to which the Romans never returned. There is a great disagreement among chronologers as to the

year in which the Romans finally abandoned Britain, some placing it in 422; others in 423, or 426; and some in 431, 435, or 437.

Britain, during this period, was divided into two unequal and variable parts; the southern, which was subject to the Roman yoke, and the northern, which still retained its independence. The inhabitants of the north of Britain were savage tribes, who retained their antient manners, adopting only such foreign arts as might conduce to render them more formidable enemies. They were actuated by the strongest love of liberty, and hatred to the Romans, but too much divided in their councils to unite cordially in defending their common safety. Some Scottish historians, relying on the weak assistance of tradition, and, where that fails, on efforts of imagination, have given us the names of a succession of princes, who reigned during this period, and, among the rest, of Donald I. whom they denominate the first Christian monarch. If the Christian religion were really thus early introduced into Scotland, it was probably by means of some provincial Christian, who sought to avoid the fury of Dioclesian, by living beyond the boundaries of his empire.

Attempts have lately been made to prove the Scots of this age were not destitute of literary excellence, but produced at least one poet, whose name has a claim to be consecrated to immortality, Ossian the son of Fingal. Ossian is said to have flourished about the end of the second and beginning of the third century. Several incidents in his poems point out this as his era; particularly the engagement of Fingal with Caracul or Caracalla, the son of the emperor Severus, styled by Ossian, the son of the king of the world. Mr. Gibbon fixes the era of the Caledonian war about the year 200, and speaks thus on the subject. "This Caledonian war, neither marked with great events nor attended with any important consequences, would ill deserve our attention; but it is supposed, not without a considerable degree of probability, that the invasion of Severus is connected with the most shining period of British history or fable. Fingal, whose fame, with that of his heroes and bards, has been revived in our language by a recent publication, is said to have commanded the Caledonians in that memorable juncture, to have eluded the power of Severus, and to have obtained a signal victory on the banks of the Carun, in which the *son of the king of the world,* Caracul, fled from his arms along the fields of his pride. Something of a doubtful mist still hangs over these Highland traditions; nor can it be entirely dispelled by the most ingenious researches of modern criticism: but if we could with safety indulge the pleasing supposition, that Fingal lived and Ossian sung, the striking contrast of the situation and manners of the contending nations might amuse a philosophic mind. The parallel would be little to the advantage of the more civilized people, if we compare the unrelenting revenge of Severus with the generous clemency of Fingal; the timid and brutal cruelty of Caracalla, with the bravery, the tenderness, and elegant genius of Ossian; the mercenary chiefs, who, from motives of fear or interest, served under the imperial standard, with the free-born warriors, who started to arms at the voice of the king of Morven; if, in a word, we contemplated the untutored Caledonians, glowing with the warm virtues of nature, and the degenerate Romans, polluted with the mean vices of wealth and slavery."

The dominion of the Romans over the south of Britain was productive of two very

important revolutions in the manners of the inhabitants of that part of the island. One of these resulted from the introduction of foreign customs, and the other from the propagation of our holy religion.

The Roman generals who preceded Agricola expected to subdue our ancestors entirely by force, and therefore gave full scope to their own oppressive dispositions, and to those of their soldiery. This occasioned frequent revolts, and a needless effusion of blood.

But Agricola united with the successful general, the consummate politician, and the virtuous man. He saw that the Britons who lived nearest to Gaul imitated the customs of the Gauls; and wisely considered, that to introduce the polished manners of the capital would be a work easily effected, and tend more than any thing to the permanent subjection of the country. He treated the inhabitants with justice and humanity, and having thus obtained their affection, prevailed on them to assume the toga of the Romans as an ensign of grandeur, to cultivate their eloquence, and lastly to abandon their humble cottages for lofty palaces, erected on the model of those which long adorned many places in Italy. The Britons, as they became thus more polished, became also effeminate, and seemed in a little time inclined to consider their conquerors as their countrymen, and to regard their unconquered brethren of the north as rude barbarians, as aliens, and as enemies.

Whatever public or private buildings the Roman Britons may have erected, they have suffered so much from the ravages of the Saxons, and the rust of numerous years, that scarcely a wreck remains. It is proper, however, to remark, that London, York, St. Albans, Lincoln, Colchester, and several other of our cities and great towns, derive their origin from this period. The principal monuments that remain of Roman antiquity are the camps, highways, and walls, which were made by the labour of the legionary soldiers. The two former of these are common in other countries, and will be described in a more advanced part of this work; we shall, therefore, here content ourselves with briefly noticing the walls which were erected, to defend the province from the incursions of the northern Britons.

The wall of Adrian was composed of earth, covered with green turf. It was carried from Solway frith, in as straight a line as possible to the place where Newcastle now stands, so that it must have been above 60 English and near 70 Roman miles. It consisted of four parts. 1. The principal mound of earth or rampart on the brinks of the ditch. 2. The ditch on the north side of the rampart. 3. Another rampart on the south side of the principal one, about five paces from it. 4. A large rampart on the north side of the ditch. This last was probably the military way to the line of forts on this work: and the south rampart might serve for an inner defence, in case the enemy should beat them from any part of the principal rampart, or it might be designed to protect the soldiers from any sudden attack of the provincial Britons. For many ages this work has been in so ruinous a condition, that it is impossible to discover its original dimensions with certainty. From their appearance it seems probable that the principal rampart was at least 10 or 12 feet high, and the south one not much less; but the north one was considerably lower. The ditch appears to have been nine feet wide at

the top, but somewhat narrower at the bottom. The north rampart was about 20 feet distant from the ditch.

The wall of Severus was built with stone, and consequently as it was better able to resist the attack of enemies, or the decay of age, it remains in a more perfect condition. Several inscriptions have been discovered, which give us some information concerning the Roman soldiers employed to guard this work, from which it appears that they amounted to about 10,000 men. The introduction of the Christian religion into this island would afford us a very interesting subject, but we are destitute of well authenticated materials. The probability is, that it was first brought by Roman soldiers, or merchants, and for a time made but little progress; but that in the time of Dioclesian, its votaries were numerous, and under the Christian emperors it became the prevailing religion of our ancestors. On the whole, it appears that the advantages and evils resulting from the Roman conquest, were both of them numerous and great, since from them this island received civilization and religion, but the former was degraded to effeminacy, and the latter corrupted with superstition.

CHAPTER IV.

SAXON BRITAIN.——*The invasion of the Picts and Scots. The Saxons. The heptarchy. Egbert. Alfred. Edgar. Canute. Edward the Confessor. Harold. The battle of Hastings.*

THE Picts and Scots no sooner heard of the final departure of the Romans, than they considered the whole British island as their own. One party crossed the frith of Forth, in boats made of leather, while another attacked with fury the Roman wall, which the Britons had repaired for their defence, but which they abandoned on the first assault, flying like timorous deer, and leaving their country a prey to the enemy.

The Scots and Picts made dreadful havock of the fugitives; and meeting with no opposition, they laid all the southern part of the island waste with fire and sword. Famine followed with all its horrid train. The miserable Britons, in this frightful extremity, had once more recourse to Rome; they wrote to Ætius, then consul the third time, that memorable letter, entitled, The Groans of the Britons, and which paints their unhappy condition strongly as is possible for words: "We know not," say they, "even which way to flee. Chased by the barbarians to the sea, and forced back by the sea upon the barbarians, we have only left us the choice of two deaths; either to perish by the sword, or be swallowed up by the waves." What answer they received is uncertain; but it is well known they received no assistance. Rome being then threatened by Attila, the most terrible enemy that ever invaded the empire.

The Britons, however, amid all their calamities, had one consolation: they had embraced Christianity; a religion which above all others teaches the endurance of misfortunes, which encourages its votaries to triumph in adversity, and inspires the soul with joy in the hour of affliction. Many of them fled over to Gaul, and settled in the province of Armorica, to which they gave the name of Brittany: part of them submitted to the Scots and Picts; and part, collecting courage from despair, sallied from their woods and caves upon the secure and roving invaders, cut many of them to pieces, aud obliged the rest to retire into their own country. But the enemy threatening to return next season with superior forces, the distressed Britons, by the advice of Vortigern, prince of Dunmonium, who then possessed the principal authority among them, called over to their assistance, by a solemn deputation, the Saxons and Angles, or Anglo-Saxons. The Saxons, like all the antient German tribes, were a free, brave, independent people; they had arrived at that degree of civilization in which the mind has acquired sufficient force for enterprize, and seems to derive energy from the unimpaired vigour of the body. A nation, taken collectively, is never perhaps capable of such great achievements as in this state of half-civilization. The Saxons had spread themselves over Germany ana the Low Countries from the Cimbrian Chersonesus, now Jutland, taking possession of

the whole territory between the Rhine and the Elbe; and when the Britons sent to implore their assistance, they were masters not only of the present Westphalia, Saxony, East and West Friesland, but also of Holland and Zealand. They readily complied with the request of Vortigern: and having fitted out three large transports, about 15,000 of them put to sea under the command of Hengist and Horsa, two brother chiefs said to be descended from Woden, their tutelary god. The Saxon chiefs landed in the isle of Thanet, which was assigned them as a possession, and a league was entered into between them and the British prince. Soon after their arrival, they marched against the Scots and Picts, who had made a new irruption, and advanced as far as Stamford. These northern ravagers, unable to withstand the steady valour of the Saxons, were routed with great slaughter; and the Britons, felicitating themselves on an expedient by which they had freed their country from so cruel an enemy, hoped thenceforth to enjoy security under the protection of their warlike auxiliaries. But mankind, in possession of present good, are apt to overlook the prospect of future evil: the Britons did not foresee that their deliverers were to be their conquerors; though it must have been evident to any disinterested observer, that the day of subjection was nigh. The reflections of Hengist and Horsa, after their victory over the Scots and Picts, were very different from those of the Britons; they considered with what ease they might subdue a people, who had been unable to resist such feeble invaders; and sent to their countrymen intelligence of the fertility and opulence of Britain, inviting them to come and share in the spoils of a nation, without union, and without valour, sunk in indolence and sloth. The invitation was readily accepted, 17 vessels soon arrived with 5000 men; who, joined to those already in the island, formed a very considerable army. Though now justly alarmed at the number of their allies, the Britons sought security and relief only in passive submission; and even that unmanly expedient soon failed them: the Saxons pulled off the mask; they complained that their subsidies were ill paid, and demanded larger supplies of corn and other provisions: these being refused as exorbitant, they formed an alliance with the Scots and Picts; and proceeded to open hostilities against the people they had come to protect.

The Britons were at last under the necessity of taking up arms; and having deposed Vortigern, who was become odious by his vices, and the unfortunate issue of his rash counsels, they put themselves under the command of his son Vortimer. Many battles were fought between the Saxons and Britons with various success, though commonly on the side of the former; and in one of these battles the Saxon general Horsa was slain.

The sole command now devolved upon Hengist; who, continually reinforced with fresh adventurers from Germany, carried desolation to the most remote possessions of the Britons. Anxious to spread the terror of his arms, he spared neither age, sex, nor condition. Of the unhappy Britons who escaped the general slaughter, some took refuge among inaccessible rocks and mountains; many perished by hunger, and many, forsaking their asylum, preserved their lives at the expence of their liberty. Others, crossing the sea, sought shelter among their countrymen in Armorica. They who remained at home suffered every species of misery; they were not only robbed of

all temporal but spiritual benefits. In this extremity, a British and a Christian hero appeared. Arthur, prince of the Silures, revived the expiring valour of his countrymen. He defeated the Saxons in several engagements; and particularly in the famous battle of Badon-hill, which procured the Britons tranquillity for upwards of 40 years.

But the success of Hengist and his followers having excited the ambition of other German tribes, who arrived at different times, and under different leaders, yet all speaking one language, being governed by the same regulations, and passing under the common appellation of Saxons or Angles, they were naturally led to unite against the antient inhabitants of the island. The Britons therefore ultimately found themselves unequal to the contest, and retired to the mountains of Cornwall and Wales, where they formed independent principalities, protected by their remote and inaccessible situation.

The Saxons and Angles, or Anglo-Saxons (for they are mentioned under both these denominations) were now absolute masters of the whole fertile and cultivated part of South Britain, which had changed not only its inhabitants, but its language, customs, and political institutions. History affords an example of few conquests more bloody, and few revolutions so violent, as that effected by the Saxons. In the course of their wars with the Britons, which continued 135 years, they had established many separate kingdoms, the seventh and last of which was that of Northumberland. The names of the other kingdoms were Kent, Sussex, Essex, Wessex, Mercia, and East Anglia. These seven kingdoms formed what is commonly called the Saxon heptarchy.

The kingdom of Kent was founded by Hengist in 475, and ended in 823; it contained only the county of Kent. That of the South Saxons, Sussex, and Surry, were founded by Ella in 491, and ended in 600, being conquered by the West Saxons. These latter occupied Cornwall, Devon, Dorset, Hampshire, Somerset, Wiltshire, and Berkshire. Cornwall was, however, rather nominally than really subject to their dominion, as it remained in the possession of the Britons. This kingdom commenced with Cerdic 512, and produced the celebrated Egbert, who conquered all England, and became the first sole monarch. Essex was founded by Erchenwin in 574, was conquered by the Mercians 792; it contained Essex, Middlesex, and part of Hertfordshire. East Anglia comprehended Norfolk, Suffolk, and Cambridgeshire, was founded by Uffa 575, and was seized by the Mercians about 746. Northumberland, founded by Ida in 574, and ended in 792. It was divided into two kingdoms, Deira and Bernicia. The first is said to have comprehended Yorkshire, Lancashire, Durham, Cumberland, and Westmoreland; the last Northumberland, and Scotland to the frith of Edinburgh. Mercia was a very large kingdom, comprehending the remaining part of Hertford, Gloucester, Hereford, Worcester, Warwick, Leicester, Rutland, Northampton, Lincoln, Huntingdon, Bedford, Buckingham, Oxford, Stafford, Shropshire, Derby, Nottingham, and Cheshire. It was founded by Cridda in 582, and ended 874. Each of these kingdoms was converted to the Christian religion in the time of the heptarchy, as will be more particularly related towards the close of this chapter.

EGBERT, the first sole monarch of England, was a prince of eminent abilities and

great experience. He had enjoyed a considerable command in the armies of Charlemagne, by whom he was much respected, and had acted successfully against the Normans, and other enemies of the empire. After his return to Britain, he was engaged in a variety of struggles, before he obtained the supreme dominion; but having surmounted these difficulties, he found himself without a rival. Being the only remaining descendant of Hengist and Horsa, the first Saxon leaders who landed in this island, and who were supposed to be sprung from Woden, the chief divinity of the antient Saxons, the people readily transferred their allegiance to a prince who appeared to merit it equally by his birth and talents; so that Egbert was no sooner seated on the throne of England, than the seven kingdoms of heptarchy were strongly cemented in one monarchy.

An union of government seemed to promise internal tranquillity; and the Saxons, from their insular situation, and their power, had little reason to be afraid of foreign enemies. The Britons were humbled; and the Scots and Picts, wasted by continual wars with each other, being in no condition to molest Egbert, he flattered himself with peace and security. But, however, foresight is ever limited; a fleet of those northern adventurers, who had already ravaged France, under the name of Normans, soon gave the English monarch reason to alter his opinion. They first landed in the isle of Shepey, pillaged it, and carried off their booty with impunity. They returned next year in 35 ships. Egbert gave them battle at Charmouth in Dorsetshire; where they were worsted, after an obstinate dispute, but made good their retreat to their ships. Now sensible what an enemy they had to deal with, they entered into an alliance with the Britons of Cornwall; and landing in that country, their confederates and they made an irruption into the county of Devonshire: they were met by Egbert at Hengesdown, and totally defeated. But while England was threatened with new alarms from the same quarter, this warlike monarch, who alone was able to oppose the invaders, unfortunately died, and left the kingdom to his son Ethelwolf, a prince better fitted to wear the cowl than the crown.

Ethelwolf began his reign with dividing his dominions, according to the absurd custom of those times; delivering over to his son eldest Athelstan, the countries of Essex, Kent, and Sussex. But no inconveniences seem to have arisen from this partition, the terror of the Danish invaders preventing all domestic dissensions. Time proved that this terror was but too just; the Danes returned with redoubled fury; and, though often repulsed, and sometimes defeated, they always obtained their end, by committing plunder, and carrying off their booty: they avoided coming to a general engagement, which was not suited to their plan of operations: their vessels being small, ran easily up the creeks and rivers, they drew them ashore, and formed an entrenchment around them, leaving them under a guard. they scattered themselves over the face of the country in small parties, making spoil of every thing that came in their way; goods, cattle, and women. If opposed by a superior force, they betook themselves to their vessels, set sail, and invaded some distant quarter, not prepared for their reception. All England was kept in continual alarm; nor durst the inhabitants of one part go to the assistance of another, lest their own families and possessions should be exposed to the fury of the

ravagers. Every season of the year was alike; no man could compute on a moment's safety.

Encouraged by their past successes, the Danes at length landed in so large a body, as seemed to threaten the whole island with subjection. But the Anglo-Saxons, though labouring under the weight of superstition, were still a gallant people: they roused themselves with a vigour proportioned to the necessity, and defeated their invaders in several engagements. The Danes, however, ventured, for the first time, to take up their winter quarters in England; and received in the spring a strong reinforcement, by 350 vessels; they advanced from the isle of Thanet, where they had stationed themselves, and burnt the cities of London and Canterbury. They were again defeated in several engagements; yet they still maintained their settlement in the isle of Thanet, and spent next winter in the isle of Shepey.

During the absence of Ethelwolf, his eldest son Athelstan died; and Ethelbald, the second son, had formed the project of excluding his father from the throne. This unnatural attempt gave the pious monarch little concern. He complied with most of his son's demands, and the kingdom was divided between them. Ethelwolf lived only two years after his return to England, which he left by his will to be shared between his two eldest sons, Ethelbald and Ethelbert. Ethelbald was a profligate prince, but his reign was happily short; and Ethelbert succeeding to the government of the whole kingdom, conducted himself, during a reign of five years, in a manner more suitable to his rank. England was still infested by the depredations of the Danes; who, in this reign, sacked Winchester, but were there defeated. Ethelbert was succeeded by his brother Ethelred, whose whole reign was one continued struggle with the Danes. He defended his kingdom with much bravery, and was gallantly seconded in all his efforts by his younger brother Alfred; who, though excluded from a large inheritance left him by his father, generously sacrificed his resentment to the public good. Ethelred died in the midst of these troubles, and left his disordered kingdom to his brother Alfred. Alfred was now 20 years of age, and a prince of very promising talents. He had no sooner buried his brother, than he was obliged to take the field against the Danes. They had seized Wilton, and were ravaging the neighbouring country. He gave them battle, and at first gained some advantage over them; but, pursuing his victory too far, he was worsted by means of the enemy's numbers. The loss of the Danes, however, was so considerable, that, fearing Alfred might suddenly receive reinforcement from his subjects, they stipulated for a safe retreat, under a promise to depart the kingdom But they were no sooner freed from danger, than they renewed their ravages. A new swarm of Danes landed, under three principal leaders; and Alfred, in one year, fought eight battles with these faithless and inhuman invaders, and reduced them to the greatest extremity. But the generous prince, again condescending to treat with them, was again deceived. While he was expecting the execution of the agreement, a third swarm landed from the northern hive, and reduced the Saxons to despair. They believed themselves abandoned by heaven, and devoted to destruction; since, after all their vigorous efforts, fresh invaders still poured in upon them, as greedy of spoil and slaughter as the former. Some left their country, others submitted to the conquerors, but none would listen to the ex-

hortations of Alfred, who, still undismayed, begged them to make one exertion more in defence of their possessions, their liberties, and their prince.

Thus abandoned by his subjects, this illustrious monarch was obliged to lay aside the ensigns of his dignity, and assume the habit of a peasant. In that mean disguise he eluded the pursuit and fury of his enemies; and, in order to save his country, he even condescended to live for some time as servant to a grazier. But the human mind is as little suited to employments beneath as above its capacity: the great Alfred made a bad cow-herd. His guardian genius was occupied about higher cares; and, as soon as he found the search of his enemies become more remiss, he collected some of his adherents, and retired into the middle of a morass, formed by the stagnating waters of the Thone and Parret; where, finding some firm ground, he built and fortified a castle, no less secure by its own strength, than by its remote and inaccessible situation. The place is called Æthelingey, or the isle of Nobles. It now bears the name of Athelney. Here, during a twelvemonth, Alfred lay concealed, but not inactive: he made frequent and unexpected sallies upon the Danes, who often felt the vigour of his arm, but knew not whence the blow came, or by whom it was directed. At length a prosperous event emboldened the royal fugitive to leave his retreat, and enter on a scene of action more worthy of himself. Oddune, earl of Devonshire, being besieged in his castle by Hubba, a celebrated Danish general, made an unexpected sally upon the enemy, put them to rout, and pursued them with great slaughter; killed Hubba himself, and got possession of the famous Reafen, or Raven, an enchanted standard, in which the Danes put great confidence.

The news of this victory was immediately carried by the faithful earl to Alfred, who was happy to find the seeds of valour beginning to revive among his subjects; but, before he would assemble them in arms, he resolved to inspect the situation of the enemy, and judge of the probability of success, as an unfortunate attempt in the present state of national despondency must have terminated in final ruin. In consequence of this resolution, he entered the Danish camp under the disguise of a harper, and passed unsuspected through every quarter. He observed the supine security of the ravagers, their contempt of the English, and their neglect of all military regulations. Encouraged by these propitious appearances, he sent intelligence to his most powerful subjects, and summoned them to assemble, along with their retainers, on the borders of Selwood forest.

The English, who, instead of ending their calamities by submission, as they fondly hoped, had found the insolence and rapine of the conquerors more intolerable than the dangers and fatigues of war, joyfully resorted to the place of rendezvous. They saluted their beloved monarch with bursts of applause; they could not satiate their eyes with the sight of a prince whom they had believed dead, and who now appeared as their deliverer: they begged to be led to liberty and vengeance. Alfred did not suffer their ardour to cool: he conducted them instantly to Eddington, where the Danes lay encamped; and, taking the advantage of his previous knowledge of the enemy's situation, he directed his attack against their most unguarded quarter. Surprised to see an army of Englishmen, whom they considered as totally subdued, and still more to find

Alfred at their head, the Danes made but a feeble resistance, notwithstanding their superior numbers: they were soon put to flight, and routed with great slaughter. Alfred, no less generous than brave, and who knew as well how to govern as to conquer, took the remains of the Danish army and prince Guthrum under his protection. He granted them their lives on submission, and liberty to settle in the kingdom of Northumberland and East Anglia, (which were entirely desolated by the frequent inroads of their countrymen) on condition that they should embrace Christianity. They consented, and were baptised: the king stood godfather for Guthrum. This mode of population fully answered Alfred's expectation: the greater part of the Danes settled peaceably in their new possessions; and the more turbulent made an expedition into France, under their famous leader Hastings, who afterwards invaded England, but was expelled by the valour and vigilance of Alfred.

In the mean time, this great prince was employed in establishing civil and military institutions; in composing the minds of men to industry and justice, and in providing against the return of like calamities. After rebuilding the ruined cities, particularly London, which had been destroyed by the Danes in the reign of Ethelwolf, he established a regular militia for the defence of the kingdom. He took care that all his subjects should be armed and registered, and assigned them a regular round of duty; he distributed one part into the castles and fortresses, which he erected at proper places; he appointed another to take the field on any alarm, and assemble at stated places of rendezvous; and he left a sufficient number at home, who were employed in the cultivation of the lands, and afterwards took their turn in military service. The whole kingdom was like one great garrison: the Danes could no sooner land in any quarter, than a sufficient force was ready to oppose them, and that without leaving the other parts naked or defenceless. But Alfred did not trust solely to his land forces. He may be considered as the creator of the English navy, as well as the establisher of the monarchy. Sensible that ships are the most natural bulwark of an island, a circumstance hitherto entirely overlooked by the Saxons, or English, as they began now to be generally called, he provided himself with a naval force and met the Danes on their own element. A fleet of 120 armed vessels was stationed upon the coast; and being provided with warlike engines, and expert seamen, both Frisians and English, maintained a superiority over the enemy, and gave birth to that claim, which England still supports, to the sovereignty of the ocean.

In this manner did Alfred provide for the security of his kingdom; and the excellent posture of defence every where established, together with the wisdom and valour of the prince, at length restored the peace and tranquillity of England, and communicated to it a consequence hitherto unknown in the monarchy. But it would convey a very imperfect idea of Alfred's merit, were we to confine ourselves merely to his military and political talent. His judicial institutions, and his zeal for the encouragement of arts and sciences, demand our particular attention. We must now, therefore, consider him in a character altogether civil; as the father of English law and English literature.

Though Alfred, in the early part of his reign, had subdued, settled, or expelled the

Danes as a body, straggling bands of that people afterwards continued to infest the kingdom with their robberies; and even the native English, reduced to extreme indigence, by these and former depredations, abandoned themselves to a like disorderly life: they joined the robbers in pillaging the more wealthy part of their fellow citizens. These evils required redress, and Alfred took means effectually to remove them. In order to render the execution of justice more strict and regular, he divided all England into counties; these counties he subdivided into hundreds, and the hundreds into tythings. Every householder was answerable for the behaviour of his family, of his slaves, and even of his guests, if they resided above three days in his house. Ten neighbouring householders, answerable for each other's conduct, were formed into one corporation, under the name of a tything, decennary, or friborough, over which a person called a tythingman, headborough, or borsholder, presided. Every man was punished as an outlaw, who did not register himself in some tything; and no man could change his habitation, without a warrant and certificate from the borsholder of the tything to which he formerly belonged.

These regulations may seem rigorous, and are not perhaps necessary in times when men are habituated to obedience and justice. But they were well calculated to reduce a fierce and licentious people, under the salutary restraints of law and government; and Alfred took care to temper their severity by other institutions favourable to the freedom and security of the subject. Nothing can be more liberal than his plan for the administration of justice. The borsholder summoned his whole decennary to assist him in the decision of smaller differences among the members of the corporation: in controversies of greater moment, the dispute was brought before the hundred, which consisted of ten decennaries, or a hundred families of free-men, and was regularly assembled once in four weeks, for the trying of causes. Their mode of decision claims your attention; twelve freeholders were chosen; who, having sworn along with the magistrate of the hundred to administer impartial justice, proceeded to the examination of the cause that was submitted to them. In this simple form of trial we perceive the origin of juries, or judgment by equals, an institution now almost peculiar to the English nation, admirable in itself, and the best calculated for the preservation of man's natural rights, and the administration of justice, that human wisdom ever devised.

Beside these monthly meetings of the hundred, there was an annual meeting, appointed for the more general inspection of the police of the district; inquiring into crimes, correcting abuses in magistrates, and obliging every person to shew the decennary in which he was registered. In imitation of their ancestors, the antient Germans, the people on those occasions assembled in arms; whence an hundred was sometimes called a wapentake, and its court served for the support of military discipline, as well as the administration of justice. The next superior court to that of the hundred was the county-court, which met twice a-year, and consisted of all the freeholders of the county, who had an equal vote in the decision of causes. To the alderman and bishop, Alfred added a third judge in each county, under the name of sheriff, who enjoyed equal authority with the two former. His office also empowered him to guard the rights of

the crown in the county, and levy the fines imposed; which, in an age when money atoned for almost every violation of the laws of society, formed no inconsiderable branch of the public revenue.

In default of justice from all these courts, an appeal lay to the king himself in council; and as the wisdom and justice of Alfred were universally revered, he was soon overwhelmed with appeals from all parts of his dominions. In order to remedy this inconvenience, he chose the earls and sheriffs from among the men most celebrated for probity and knowledge in the kingdom: he punished severely all malversation in office; he removed all whom he found unequal to the trust; and the better to guide magistrates of all kinds in the administration of justice, he framed a body of laws; which, though now lost, served long as the basis of English jurisprudence, and is generally esteemed the origin of our COMMON LAW.

Alfred appointed regular meetings of the states of England twice a year in the city of London, which he himself had repaired and beautified, and which thenceforth became the capital of the kingdom. Every thing soon wore a new face under his wise and equitable government. Such success attended his legislation, and so exact was the general police, that he is said to have hung up, by way of trial, golden bracelets, near the high roads, and no man dared to touch them. But this great prince, though rigorous in the administration of justice, which he wisely considered as the best means of repressing crimes, preserved the most sacred regard to the liberty of his people. His concern on this subject extended even to future times, and ought to endear his memory to every Englishman. "It is just," says he in his will, "that the English should for ever remain FREE AS THEIR OWN THOUGHTS."

After providing for the security of his kingdom, and taming his subjects to the restraints of law, Alfred extended his care to those things which aggrandize a nation, and make a people happy. Sensible that good morals and knowledge are almost inseparable in every age, though not in every individual, he gave great encouragement to the pursuit of learning. He invited over the most celebrated scholars from all parts of Europe; he established schools every where for the instruction of the ignorant; he founded, or at least repaired, the university of Oxford, and endowed it with many privileges, revenues, and immunities; he enjoined by law all freeholders, possessed of two hides of land, to send their children to school; and he gave preferment, either in church or state, to such only as had made some proficiency in knowledge. But the most effectual expedient employed by Alfred for the encouragement of learning was his own example, and the progress which he made in science. Notwithstanding the multiplicity of civil objects which engaged his attention, and although he fought in person 56 battles by sea and land, this illustrious hero and legislator was able to acquire, by his unremitting industry, during a life of no extraordinary length, more knowledge, and even to produce more books, than most speculative men, in more fortunate ages, who have devoted their whole time to study. He composed a variety of poems, fables, and apt stories, to lead the untutored mind to the love of letters, and bend the heart to the practice of virtue. For the same purpose he translated from the Greek the instructive fables of Æsop. He also gave Saxon translations of the histories of Orossius and Bede, and of the Consolations

of Philosophy," by Boetius. Alfred was no less attentive to the propagation of those mechanical arts, which have a more sensible, though not a more intimate connection with the welfare of a state. He introduced and encouraged manufactures of all kinds, and suffered no inventor or improver of any useful or ingenious art to go unrewarded. He prompted men of activity and industry to apply themselves to navigation, and to push commerce into the most distant countries; and he set apart a seventh portion of his own revenue for maintaining a number of workmen, whom he employed in rebuilding the ruined cities and castles. The elegancies of life are said to have been brought to him, even from the Mediterranean and the Indies; and his subjects, seeing these desirable productions, and the means of acquiring riches by trade, were taught to respect those peaceful virtues, by which alone such blessings can be earned or insured.* This extraordinary man, who is justly considered, both by natives and foreigners, as the greatest prince after Charlemagne that Europe saw for several ages, and as one of the wisest and best that ever adorned the annals of any nation, died in the year 901, in the vigour of his age, and the full strength of his faculties, after a life of fifty-three years, and a glorious reign of twenty-nine years and a half. His merit, both in public and private life, may be set in opposition to that of any sovereign or citizen in antient or modern times. He seems indeed, as is observed by an elegant and profound historian, to be the complete model of that perfect character, which, under the denomination of a sage, or truly wise man, philosophers have been so fond of delineating, without the hopes of ever seeing realized.

Alfred was succeeded by his son Edward the Elder, being the first of that name who sat on the English throne. Though inferior to his father in genius and erudition, he equalled him in military talents, and he had occasion for them. Ethelwald, his cousin german, son to king Ethelbert, Alfred's elder brother, disputed the crown, and called in the Danes to support his claim. The death of Ethelwald, who fell in a battle with the Kentish men, decided the quarrel; but Edward's wars with the Danes continued during the greater part of his reign, though he was successful in almost every engagement. He died in 925.

Athelstan, Edward's natural son, obtained the kingdom, in preference to his legitimate children. As he was arrived at an age more suited to the cares of government; and the nation, exposed to foreign and domestic wars, required a prince of vigour and abilities, the stain in his birth was overlooked.

No sooner was Athelstan securely seated on the throne, than he endeavoured to give it stability, by providing against the insurrections of the domestic Danes. With this view he marched into Northumberland, their most considerable settlement; and finding that they bore with impatience the English yoke, he judged it prudent to confer on Sitheric, a Danish nobleman, the title of king, and to give him his sister [illegible]itha in marriage, as a farther motive of attachment. But this policy, though apparently wise, proved the source of many troubles. Sitheric died within a twelvemonth after his elevation; and his two sons, by a former marriage, Anlaf and Godfrid, founding pretensions on their father's rank, assumed the sovereignty, without waiting for the approbation of Athelstan. But they were soon expelled by that powerful monarch, who was no

less brave than politic. The former took shelter in Ireland, the latter in Scotland; where he was protected for some time by the clemency of Constantine, who then swayed the Scottish sceptre. Continually solicited, however, and even menaced by the English monarch, Constantine at last promised to deliver up his guest; but secretly detesting such treachery, he gave Godfrid a hint to make his escape. Incensed at Constantine's behaviour, though the death of the fugitive had freed him from all apprehensions, Athelstan entered Scotland with a numerous army, and reduced the Scots to such distress, that the king was happy to preserve his crown by the most humble submission.

Athelstan afterwards defeated the Scots, Welsh, and Danes, in a general engagement at Brunsbury in Northumberland. In consequence of this victory, he enjoyed tranquillity during the rest of his reign. He appears to have been one of the most able and active of our antient princes; and his memorable law for the encouragement of commerce discovers a liberality of mind worthy of the most enlightened ages: That a merchant, who had made two voyages on his own account to distant lands, should be admitted to the rank of a lesser thane or gentleman.

Athelstan was succeeded by his brother Edmund; who, on his succession, met with some disturbances from the Northumbrian Danes, whom he reduced to obedience. He also conquered Cumberland from the Britons, and conferred that principality on Malcolm, king of Scotland, on condition that he should do homage to England for it, and protect the northern counties from all future incursions of the foreign Danes. Edmund's reign was short, and his death violent. As he was solemnizing a feast in Gloucestershire, a notorious robber, named Leof, whom he had sentenced to banishment, audaciously entered the hall where his sovereign dined, and seated himself at one of the tables. Enraged at such insolence, Edmund ordered him to be seized; but observing that the ruffian was preparing to resist, the indignant monarch sprung up, and catching him by the hair, dragged him out of the hall Meanwhile Leof, having drawn his dagger, lifted his arm with a furious blow, and stabbed the king to the heart, who immediately expired on the bosom of his murderer. Edmund left male issue, but as his eldest son was too young to govern the kingdom, his brother Edred was raised to the throne.

The beginning of Edred's reign, like those of his predecessors, was disturbed by the rebellion of the Northumbrian Danes. Though frequently humbled, they were never entirely subdued, nor had they ever paid a sincere allegiance to the English crown. Their obedience lasted no longer than the present terror. Edred, instructed by experience, took every precaution to prevent their future insurrections. He settled English garrisons in their most considerable towns, and placed over them an English governor, to watch their motions, and check the first appearance of revolt. He also obliged Malcolm, king of Scotland, to renew his homage for Cumberland. But Edred, though a brave and active prince, lay under the influence of the lowest superstition, and had blindly delivered over his conscience to the guidance of Dunstan, abbot of Glastonbury, commonly called St. Dunstan, whom he advanced to the highest offices of state, and who concealed beneath an appearance of sanctity, the most insatiate and insolent ambition. In order to impose on the credulity of mankind, this designing monk had long secluded himself from the

world in a miserable cell, where he is said to have had frequent conflicts with the devil; until one day, while the infernal spirit, attempting to seduce him in the shape of a woman, Dunstan seized him by the nose with a pair of red-hot pincers, and held him till the whole neighbourhood resounded with his bellowings. Satan, thus vanquished, durst never more shew his face. This story, and others of the like nature, then seriously believed, obtained the abbot a reputation, both with prince and people, which no real piety or virtue could possibly have procured him. Soon after his return from solitude, he was placed by Edred at the head of the treasury; and, sensible that he owed his advancement solely to the opinion of his integrity, he professed himself a friend to the rigid monastic rules, which about this time began to prevail, and by which monks were excluded from all commerce with the world and with women. He introduced them into the convents of Glastonbury and Abingdon, and endeavoured to render them universal in the kingdom.

In the prosecution of this design, he met with much opposition from the clergy, and much support from the king. Edred intrusted him with the management of public affairs, made him treasurer, obeyed his counsels with the utmost servility, and even submitted to receive corporeal discipline at his hands.

In a little time, however, the power of the monks received a check, by the death of Edred, the dupe of their ambition. He left children, but in an infant state; the crown was therefore conferred on Edwy, his nephew, son to Edmund, his brother and predecessor. This prince, who was only seventeen years of age at his accession, possessed an elegant person, and the most amiable and promising virtues. But neither the grace of his figure, nor the accomplishments of his mind, could screen him from the fury of the monks, whom he unhappily offended in the beginning of his reign. The beautiful Elgiva, his second or third cousin, had made an impression on the susceptible heart of Edwy; and as he was at an age when the tender passions are most keenly felt, he ventured to marry her, though within the degrees of affinity prohibited by the church. The austerity of the monks made them particularly violent on this occasion: the king therefore entertained a strong aversion against them, and determined to oppose their project of expelling the seculars from the convents. But he had soon reason to repent his rashness, in provoking such dangerous enemies. On the day of his coronation, while the nobility, assembled in the great hall, were indulging themselves in riot and disorder, after the example of their German ancestors, Edwy retired to the queen's apartment, and gave loose to his fondness, which was but feebly checked by the presence of her mother. Dunstan conjectured the reason of the king's absence; and carrying along with him Odo, archbishop of Canterbury, over whom he had gained an absolute ascendant, he burst into the royal privacy, upbraided Edwy of lasciviousness, tore him from the arms of his consort, and pushed him back ignominiously into the company of the nobles, loading the queen with the most opprobrious epithets. Though Edwy was young, and had the prejudices of the age to encounter, he found means to revenge this public insult. He accused Dunstan of malversation in office, while at the head of the treasury; and as that minister did not clear himself of the charge, the king banished him the realm. But Dunstan's party were not idle during his absence. They poisoned

the minds of the people to such a degree by declarations against the king, and panegyrics on the abbot's sanctity, that the royal authority was despised, and still more outrageously insulted. Archbishop Odo ordered the queen to be seized; and after her face had been seared with a red hot iron, in order to destroy that fatal beauty which had engaged the king, she was carried into Ireland, there to remain in perpetual exile. Edwy, finding resistance ineffectual, was obliged to consent to a divorce, which was pronounced by the imperious Odo.

But these were not the only evils which attended this unfortunate prince and his consort. The amiable Elgiva was made prisoner by her persecutors, and cruelly murdered in returning to the embraces of the king, whom she still considered as her husband. Nothing less than her death could satisfy the archbishop and the monks. Edwy was dethroned by the same influence, in order to make room for his brother Edgar, a boy of thirteen years of age. Dunstan returned to England, and took upon him the government of the young king and his party. He was first installed in the see of Worcester, next in that of London, and afterwards in that of Canterbury; of all which he long kept possession. In the mean time, the unhappy Edwy was excommunicated, and pursued by his enemies with unrelenting vengeance. But his death soon freed them from all inquietude, and left Edgar in peaceable possession of the throne.

The reign of Edgar is one of the most fortunate in the English annals. Though he ascended the throne in early youth, he soon discovered an excellent capacity for government. He shewed no aversion against war: he took the wisest precautions for public safety; and, by his vigilance and foresight, he was enabled to indulge his natural inclination for peace. He maintained a body of troops in the north, to keep the mutinous Northumbrians in awe, and to repel the inroads of the Scots. He also built and supported a powerful navy, and, in order to habituate the seamen to the practice of their profession, as well as to intimidate his enemies, he stationed three squadrons off the coasts of his kingdom, and commanded them to make by turns the circuit of his dominions.

The foreign Danes durst not approach a country which was so strongly defended; the domestic Danes saw destruction to be the inevitable consequence of insurrection; and the princes of Wales, of Scotland, and even of Ireland, were happy to appease so potent a monarch by submissions. But the means by which Edgar more especially maintained his authority at home, and preserved public tranquillity, was paying court to Dunstan and the monks, who had violently placed him on the throne, and whose claim to superior sanctity gave them an ascendant over the people. He favoured their scheme of reformation as it was called, but in reality, of dispossessing the secular canons of the monasteries: he consulted them in the administration of all ecclesiastical, and even of many civil affairs; and although the vigour of his genius prevented him from being entirely guided by them, he took care never to disoblige them. Hence he is represented by the monkish writers not only as a warrior and a politician, a character which he seems to have merited, but also as a saint and a man of virtue, though he was licentious in the highest degree, and violated every law human and divine. His very amours are a compound of barbarity and brutality. He broke open a convent, carried off a nun by

force, and even committed violence on her person. Struck also with the charms of a nobleman's daughter, in whose house he was entertained, he demanded that she should pass that very night with him, without once consulting the young lady's inclinations. But the most remarkable amour was with the beautiful Elfrida; and as it is connected with the history of the following reign, we shall relate it circumstantially. It will give at once an idea of the manners of the age, and of the character of Edgar.

Elfrida, the only daughter and sole heiress of Olgar, earl of Devonshire, though educated in the country, and a stranger at court, had filled all England with the reputation of her beauty. Edgar, who was never indifferent to any report of this kind, sent Athelwold, his favourite, to see if the young lady was indeed as fair as fame had represented her. Athelwold no sooner saw Elfrida than he was inflamed with love, and determined to sacrifice to it his fidelity to his master: he therefore told Edgar, on his return, that the fortune and quality of Elfrida alone had been the cause of the adulation paid her; and that her charms, so far from being extraordinary, would have been entirely overlooked in a woman of inferior condition; "But," added he, when he found he had blunted the edge of the king's curiosity, "though she has nothing to claim the attention of a sovereign, her immense wealth would, to a subject, be a sufficient compensation for the homeliness of her person; and, although it could never produce on me the illusion of beauty, it might make her a convenient wife." Edgar, glad of an opportunity of establishing his favourite's fortune, not only gave his approbation to the projected match, but forwarded its success by recommending him in the warmest manner to the earl of Devonshire; so that Athelwold was soon made happy in the possession of his beloved Elfrida. Dreading, however, the eyes of the king, he still found some pretence for detaining his wife in the country. But all his precautions were insufficient to conceal his treachery. Royal favourites are never without enemies: Edgar was soon informed of the truth; but before he would execute vengeance on Athelwold's perfidy, he resolved to satisfy himself fully in regard to Elfrida's beauty He therefore told his deceiver, that he intended to pay him a visit at his castle, and be introduced to his wife, whose beauty he had formerly heard so much praised. Athelwold was thunderstruck at the proposal; but, as he could not refuse such an honour, he only begged leave to go a few hours before his royal guest, that he might make proper preparation for his reception. On his arrival he fell at his wife's feet, discovered the whole secret, and conjured her, if she valued either her own honour or his life, to disguise as much as possible that fatal beauty, which had tempted him to deceive his prince and friend. Elfrida promised compliance, though nothing appears to have been farther from her thoughts. She adorned her person with the most exquisite art, and called forth all her charms; not despairing, it should seem, yet to reach that exalted station of which Athelwold's fondness had deprived her. The event was answerable to her wishes: she excited at once in Edgar's bosom the warmest love, and the keenest desire of revenge. The king however, who could dissemble those passions as well as feel them, beheld her with seeming indifference, and having seduced Athelwold into a wood, under pretence of hunting, he stabbed him with his own hand, took Elfrida to court, and soon after publicly married her.

This reign is remarkable for the extirpation of wolves from England. Edgar took great pleasure in pursuing those ravenous animals; and when he found they had all taken shelter in the mountains and forests of Wales, he changed the tribute of money, imposed on the Welch princes by Athelstan, into an annual tribute of 300 head of wolves; a policy which occasioned so much diligence in hunting them, that the breed soon became extinct in the island.

Edgar was succeeded by his son Edward, commonly called the Martyr, whom he had by his first wife, the daughter of earl Ordmer. The succession of Edward did not take place without much opposition. Elfrida, his step mother, had a son named Ethelred, only seven years old, whom she attempted to raise to the throne. But the principal nobility, dreading her imperious temper, opposed a measure which must increase her authority, if not put her in possession of the regency; and Dunstan, to whom it was of great importance to have a king favourable to his cause, resolutely crowned and anointed Edward, over whom he had already gained an absolute ascendant. His short reign was remarkable for nothing but a continual struggle between the monks and the secular clergy. He was treacherously murdered, at the instigation of Elfrida, in order to make room for her son Ethelred.

Soon after the accession of Ethelred, a prince without courage or capacity, England was visited anew by the Danes. The wise regulations of Alfred, and the valour of his immediate successors, had long deterred these ravagers from approaching the British shores; and their settlements in France had required for a time most of their superfluous hands. But a new race of men having sprung up in the north regions, who could not long disburden themselves on Normandy, and England being no longer governed by an Alfred or an Edgar, they ventured to renew their depredations. Ethelred, instead of rousing his people to defend with courage their prince and their property, meanly compounded with the enemy for his safety, by bribing them to depart the kingdom.

That shameful expedient, which invited assailants instead of repelling them, was attended with the success that might have been excepted; the Danes again returned, and were again bribed to depart. In the mean time, Ethelred, from a policy incident to weak princes, embraced the cruel resolution of massacreing the Danes throughout all his dominions. Secret orders were accordingly given to commence the execution on the same day, and all the Danes were destroyed without mercy. Even Gunilda, sister to the king of Denmark, who had married earl Paling, and embraced Christianity, was seized and put to death by Ethelred, after having seen her husband and children butchered before her face. This unhappy princess foretold, in the agonies of despair, that her murder would soon be revenged by the total ruin of the English nation: never was prophecy better fulfilled, nor ever did barbarous policy prove more fatal to its projectors.

Sweyn, king of Denmark, breathing vengeance for the slaughter of his countrymen, landed speedily in the west of England, and desolated the whole kingdom with fire and sword. The English, sensible what they had to expect from a barbarous and enraged enemy, attempted several times to make a stand; but they were successively betrayed by

Alferic and Edric, governors of Mercia. The base and imprudent expedient of money was again tried, till the nation was entirely drained of its treasure, but without effect. The Danes continued their ravages; and Ethelred, equally afraid of the violence of the enemy and the treachery of his own subjects, fled over to his brother-in-law, Richard duke of Normandy, who received him with a generosity that does honour to his memory.

Sweyn died soon after Ethelred left England, and before he had time to establish himself in his newly acquired dominions, Ethelred was recalled; but his misconduct was incurable; on resuming the government, he discovered the same incapacity, indolence, and credulity, which had so often exposed him to the insult of his enemies; and the English found in Canute, the son and successor of Sweyn, an enemy no less terrible than his father. An army was assembled against him, under the command of Edric and prince Edmund. Edric, whom the infatuated king still trusted, continued his perfidious machinations; after endeavouring in vain to get the prince into his power, he found means to dissipate the army, and then openly revolted to Canute with 40 vassals.

Notwithstanding this misfortune, Edmund, whose intrepidity never failed him, collected the remaining force of the kingdom, and was soon in a condition to give the enemy battle. But the king had so often experienced the perfidy of his subjects, that he lost all confidence in them: he therefore refused to take the field; so that the prince's vigorous measures were rendered altogether ineffectual, the army being discouraged by the timidity of their sovereign. As the North had already submitted to Canute's power, Edmund retired to London, determined there to maintain the small remains of English liberty. In the mean time his father died, after an inglorious reign of 35 years. Ethelred left two sons by his first marriage: Edmund, who succeeded him, and Edwy, whom Canute afterwards murdered. His two sons by the second marriage, Alfred and Edward, were conveyed into Normandy by queen Emma, immediately after the death of their father.

Edmund, who received the name of Ironside from his hardy valour, possessed courage and abilities sufficient to have saved his country, not only from sinking under its present calamities, but even to have raised it from the abyss of misery into which it was already fallen, had the English, among their other misfortunes, not been infected with treachery and disloyalty. But these rendered his best concerted schemes abortive, and his noblest efforts fruitless. The traitor Edric pretended to return to his duty; and, as Edmund had no general in whom he could repose more confidence, he gave him a considerable command in the army. A battle was soon after fought at Assington in Essex. Edric deserted to the enemy in the beginning of the day, and occasioned the total defeat of the English army, with great slaughter of the nobility. The indefatigable Edmund, however, had still resources. He assembled a new army at Gloucester, and was again in a condition to dispute the field; when the Danish and English nobility, equally tired of the struggle, obliged their kings to come to terms. The kingdom was divided between them by treaty.

Canute reserved to himself the northern division, Mercia, East Anglia, and Northumber-

land; which he had entirely subdued: the southern parts were left to Edmund, who survived the treaty only a month. He was murdered at Oxford by two of his chamberlains, accomplices of Edric, whose treachery made way for the accession of Canute the Dane to the throne of England; Edwin and Edward, the sons of Edmund, being yet in their infancy.

England was now exposed to the ambition of Canute the Dane; a prince both active and brave, and at the head of a numerous army, ready to take advantage of the minority of Edwin and Edward, the sons of Edmund. The English could therefore expect nothing but total subjection from Canute. But the Danish monarch, commonly so little scrupulous, shewed, on this occasion, an anxiety to conceal his injustice under plausible pretences.

Before he seized the inheritance of the two young princes, he summoned a general assembly of the states of England, in order to fix the succession, and having suborned some noblemen to depose, that, in the treaty of Gloucester, it was agreed, "That Canute, in case of Edmund's decease, should succeed to the whole kingdom," the states, convinced by this evidence, or overawed by his victorious arms, immediately put the Dane in full possession of the government.

But although Canute had now attained the great object of his ambition, in the undivided sovereignty of England, he was at first obliged to make many sacrifices to it; and to gratify the chief nobility, by bestowing on them extensive governments and jurisdictions. He also thought himself obliged, from political motives, to exercise some severities. In order to reward his Danish followers, he loaded the people with oppressive taxes; and jealous of the two young princes, but sensible that he should make himself detested if he ordered them to be murdered in England, he sent them to his ally, the king of Sweden, whom he desired to get them privately dispatched, as soon as they arrived at his court. But the Swedish monarch was too generous to comply with such a barbarous request. Afraid, however, to draw on himself the displeasure of Canute, by protecting the English princes, he sent them to be educated in the court of Solomon, king of Hungary: a strange place surely to seek for a preceptor. But the defenceless seek only a protector; and the sons of Edmund found one in Solomon. Edwin, the eldest, was married to that monarch's sister; but he dying without issue, Solomon gave his sister-in-law, Agatha, daughter of the emperor Henry II. in marriage to Edward, the younger brother; and she bore him Edgar Atheling (whom we shall have occasion to mention); Margaret, afterwards queen of Scotland; and Christina, who retired into a covent.

The removal of Edmund's children into so distant a country as Hungary, was regarded by Canute, next to their death as the greatest security of his government. But he was still under alarm on account of Alfred and Edward, the sons of Ethelred, who were protected and supported by their uncle, Richard duke of Normandy. Richard had even fitted out a fleet, on purpose to restore the English princes to the throne of their ancestors In order, therefore, to break the storm, and to secure himself on that side, Canute paid his addresses to queen Emma, the duke's sister, and the mother of these princes, who disputed his sway. He was listened to: Richard sent over Emma

to England; where she was soon after married to Canute, the enemy of her former husband's family, and the conqueror of that country which her children had a right to rule. But Canute promised that her children should still rule it; though not the children of Ethelred; and although the English disapproved of the match, they were pleased to find at court a sovereign to whom they were accustomed: so that the conqueror, by this marriage, not only secured the alliance of Normandy, but acquired the confidence of his new subjects.

Having thus freed himself from the danger of a revolution, Canute determined, like a truly wise prince, by the equity of his administration, to reconcile the English yet farther to the Danish yoke. He sent back to his own country as many of his followers as could safely be spared; he restored the Saxon customs; he made no distinction between the Danes and English in the distribution of justice: and he took care, by a strict execution of law, to protect the lives and properties of all his subjects. The Danes were gradually incorporated with the native English; and both were glad to breathe a little from those multiplied calamities which the conquerors, no less than the conquered, had experienced in their struggle for dominion. The first use that Canute made of his tranquillity was to visit Denmark, where he obtained a victory over the Swedes, by the valour of the English, under the command of earl Godwin, on whom he bestowed his daughter in marriage. In a second voyage to Denmark, he made himself master of Norway, and expelled the good Olaus from his kingdom.

Canute seems to have attained the height of his ambition; for, from this period, he appears not only to have laid aside all thoughts of future conquests, but to have held in contempt all the glories and pleasures of the world: a necessary consequence, of assigning to human enjoyments a satisfaction which they cannot yield, and more especially of pursuing them at the expence of justice and humanity. During this change of mind it must have been that Canute, the greatest and most powerful prince of his time, being sovereign of Denmark, Norway, and England, put to the blush his flattering courtiers, who exclaimed, in admiration of his grandeur, that every thing was possible for him. He ordered a chair to be brought, and seated himself on the sea-shore, while the tide was rising; and as the waves approached, he said, in an imperious tone, "Thou sea! art under my dominion, and the land which I sit upon is mine: I charge thee, approach no farther! nor dare to wet the feet of thy sovereign." He even sat some time in seeming expectation of submission: but as the sea still advanced towards him, and at last began to wash him with its billows, he turned to his courtiers, and observed, that every creature in the universe is feeble and impotent; and that power resides only with ONE Being, in whose hands are the elements of nature, and who can say to the Ocean, "Thus far shalt thou go and no farther!"

But although Canute, sick of worldly greatness, began to turn his eyes towards a future state of existence, the spirit which prevailed in that age unfortunately gave a wrong direction to his piety. Instead of making reparation to the persons whom he had injured by former acts of violence, he built churches, endowed monasteries, and appointed prayers to be said for the souls of those who had fallen against him; nay, more meritorious than all the rest! he undertook a pilgrimage to Rome. After his return from Rome, Canute

performed nothing memorable, except an expedition against Malcolm, king of Scotland, whom he humbled.

He died in 1035, and left the crown of England to his son Harold Hare-foot, by his first wife, Alfwen, daughter to the earl of Hampshire, in prejudice of Hardicanute, his son by queen Emma, to whom he had promised the succession. Harold reigned only four years; he was succeeded by his brother Hardicanute, whose reign was still shorter. Neither of these princes had any qualities that merit attention, nor did any thing memorable happen during their reigns. It will, therefore, be sufficient to observe, that on the death of Hardicanute, who fell a sacrifice to his brutal intemperance, the English shook off the Danish yoke, and recalled from Normandy Edward, son of Ethelred and Emma, surnamed the Confessor, to the throne of his ancestors.

This revolution was effected without bloodshed: and the mild and equitable government of Edward soon reconciled the Danes, no less than the English, to his sway. The distinction between the two nations vanished; but the English in vain flattered themselves, that they were for ever delivered from foreign masters; a little time convinced them that the evil was rather suspended than removed. Edward had been educated in Normandy; and having contracted many intimacies with the natives of that country, as well as an affection for their manners, the court of England was soon filled with Normans, who were distinguished by the royal favour, and had great influence in the national councils. He had also, it appears, though married to a beautiful woman, made an indiscreet vow of virginity, which rendered his bed sterile, but obtained to him from the monks the title of Saint and Confessor; and he had given his kinsman, William, duke of Normandy, hopes of succeeding to the English crown. What use that enterprising prince made of his promise real or pretended, we shall afterwards have occasion to see.

In the mean time the English, and particularly earl Godwin, the most powerful nobleman in the kingdom, and who had hopes of exalting his own son to the throne, became jealous of the preference shewn to foreigners, and openly revolted. The rebels were reduced; the estates of Godwin and his son were confiscated; and they were obliged to flee the realm. But they soon after returned, and reduced the king to conditions, the most considerable of which was, that all foreigners should be banished the kingdom. Godwin's death, which happened shortly after this treaty, prevented him from establishing that authority which he had acquired at the expence of the crown. But his son Harold, who succeeded him in his estates and offices, and who, with an ambition equal to his father's, was superior to him in address and insinuation, proved no less dangerous to the unsuspecting and unwarlike Edward; whose confidence he had obtained: and the death of Siward, duke of Northumberland, while it enfeebled the royal authority, gave still more consequence to the ambitious Harold.

Siward, beside his loyalty and exploits in behalf of the crown, had acquired honour to England by his successful conduct in the only foreign enterprise undertaken during this reign; and as it is connected with a memorable circumstance in the history of a neighbouring kingdom, as well as with the intrigues of Harold, it doubly deserves our

attention. Duncan, king of Scotland, a prince of a gentle disposition, and some talents, but not possessed of a sufficient vigour to govern a turbulent nation, distracted by the animosities of the great, had laid himself open to the designs of Macbeth, a powerful nobleman, nearly allied to the crown: and who, not contented with curbing the king's authority, carried yet farther his traitorous ambition. He murdered his sovereign, usurped the crown, and chased Malcolm Kenmure, the prince and heir, into England. Siward, whose daughter was married to Duncan, undertook, by Edward's orders, the protection of this unhappy family. He marched an army into Scotland, defeated and killed Macbeth in battle, and restored Malcolm to the throne of his ancestors. This service, added to his former connections with the royal family of Scotland, brought great accession to the authority of Siward in the North, and enabled him to be highly useful to Edward, in restraining the ambition of Godwin and his powerful family; but as he had lost his eldest son Osborn in the action with Macbeth, it proved eventually fatal to his house, and hurtful to the crown. The duke's second son Woltheof, appeared too young, on his father's death, to be entrusted with the government of Northumberland, and Harold's influence obtained that dukedom for Tosti, his own brother. There are two anecdotes related of Siward, which strongly mark his character, and are eminently expressive of that enthusiasm of valour, long so predominant in the house of Northumberland. When informed of his son Osborn's death, he was at first inconsolable: but enquiring how he fell, and being told that he behaved with great gallantry, and that his wound was in the breast, the feelings of the father seemed lost in those of the soldier: his grief was transformed into joy. "Would to God," exclaimed he, "that I had as many sons as I have hairs, that I might lose them thus." And when he found his own death approaching, he ordered himself to be clothed in a suit of complete armour; and sitting erect on a couch, with a spear in his hand; "In this posture," said he, "the only one worthy of a warrior, I will meet the tyrant: if I cannot conquer, I shall at least face the combat." Tosti behaved so tyrannically in his government of Northumberland, that the people rose against him, and expelled him by force of arms; a circumstance which contributed much to his brother's aggrandizement. Harold was appointed by the king to punish the Northumbrians, and advanced with an army for that purpose; but being met by a deputation from Morcar, who had been elected duke, and finding that Tosti had acted in a manner unworthy of his station, he returned to the king, and generously persuaded him not only to pardon the rebels, but even to confirm Morcar in the dukedom. He afterwards married the sister of that nobleman, and got her younger brother, Edwin, elected into the government of Mercia. He also undertook an expedition against the Welch, whom he obliged to receive English governors. By these political and fortunate steps, Harold soon found himself in a condition openly to aspire at the succession to the crown. He had gained the affections of his countrymen by his lenity to the Northumbrians; he had raised their admiration of his valour by his conquest of Wales; and so great was his influence, that he laid almost all England under the command of himself or his friends.

His competitors for the succession were Edgar Atheling, the sole surviving heir to the

crown, who had been recalled from Hungary, and William duke of Normanoy, the king's cousin. But the first was a youth, whose imbecility was thought sufficient to set aside his claim, and the second a foreigner. Edward's prepossessions hindered him from supporting the pretensions of Harold, and his irresolution from securing the crown to the duke of Normandy, whom he secretly favoured: he therefore died without appointing a successor, being worn out with age and infirmities, and more anxious about obtaining a heavenly, than settling his earthly inheritance.

Edward the Confessor was the first who touched for the scrophula, hence denominated the King's evil. The opinion of his sanctity procured belief among the superstitious vulgar, to this mode of cure: and his successors regarded it as a part of their royalty to support the same idea. The practice was first dropt by the princes of the house of Brunswick; who wisely considered, that such a pretension must be attended with ridicule in the eyes of all men of cultivated minds, and even become the scorn of an enlightened populace. Posterity are more indebted to this prince for the body of laws which he compiled, and which, on account of their mildness, were long dear to our ancestors.

Though Edward left the succession undecided, it did not continue so. Harold immediately stepped into the vacant throne; and so well had he taken his measures, that his accession was attended with as little opposition and disturbance, as if he had succeeded by the most indisputable hereditary title. The right of Edgar Atheling was scarce ever mentioned, and still less the claim of the duke of Normandy: the whole nation seemed joyfully to swear allegiance to the new king. The first danger that Harold experienced was from abroad, and from his own brother. Tosti, when expelled the government of Northumberland, had submitted to a voluntary banishment in Flanders: but no sooner was he informed of the accession of Harold, to whose fortunate ambition he considered himself to have fallen a sacrifice, than he entered into a league with Halfager, king of Norway, who invaded England with a fleet of three hundred sail. Tosti himself had collected about sixty vessels in the ports of Flanders, with which he put to sea, and after committing some depredations on the south and east coasts of England, he sailed to Northumberland, where he was joined by Halfager and his powerful armament. The combined fleets disembarked their troops at the mouth of the Humber; and the earls of Northumberland and Mercia were defeated in attempting to oppose the invaders. Harold was no sooner informed of this disaster, than he hastened to the North; anxious for the safety of his people, and ambitious to shew himself worthy of that crown which had been conferred upon him by his countrymen. The English flocked from all quarters to his standard: so that he found himself in a condition to give battle to his enemies, as soon as he reached them. The two armies engaged at Stamford. The action, which was long and bloody, ultimately terminated in the total rout of the Danes, and in the death of Tosti and Halfager.

Harold, however, had scarce time to rejoice on account of this victory, before he received intelligence, that the duke of Normandy, having landed with a formidable force in the south of England, determined to dispute with him the crown. The Norman prince founded his claim to the English crown on a pretended will of Edward the Confessor in his favour. This claim he fortified with an oath extorted from Harold, when shipwrecked

on the coast of France, that he would never aspire to the succession, and by which he bound himself to support the pretensions of William. The will Harold knew was void of foundation, and the oath he totally disregarded, as it had not only been drawn from him by the fear of violence, but was in itself unlawful; unless William had not only been appointed successor by the king, but chosen by the people; the English crown not being at the disposal of the sovereign. He therefore replied to the Norman ambassadors, who summoned him to resign the kingdom, that he was determined strenuously to maintain those national liberties with which he had been intrusted, and that the same moment should put a period to his life and his sway. This answer was no other than what William expected: he knew the valour of Harold, and the power of the English nation; but he consulted only his ambition and his courage. The boldness of the enterprise he thought would astonish the enemy, and inspire his soldiers with resolution from despair, as well as from a desire of supporting the reputation of their countrymen; who had about this time revived their antient fame, as we shall afterward have occasion to see, by the most hazardous exploits, and the most wonderful successes in the other extremity of Europe. Nor were these the only foundation of William's hopes. A military spirit had universally diffused itself over Europe; and the feudal nobles, whose minds were elated by their princely situation, greedily embraced the most hazardous enterprises, how little soever they might be interested in the failure or success. Hence their passion for chivalry, and their ambition to outshine each other in exertion of strength or prowess. William had long been distinguished among these haughty chieftains by his power, courage, and his address in all military exercises; and every one ambitious of acquiring renown in arms, repaired to the court of Normandy, where they were entertained with that hospitality and courtesy which distinguished the age. The fame of the intended invasion of England had been every where diffused: the more perilous the attempt appeared, the more it suited the genius of the times: multitudes of adventurers therefore crowded to tender their services to William, impatient to acquire fame under so renowned a leader, or to support, by new acts of valour, that reputation which they had already gained; so that the duke's army consisted of the flower of all the warriors of the continent, determined to die or to conquer. The continental monarchs could surely have obstructed these supplies. But Philip I. of France, whose interest most it was, being a minor, Baldwin, earl of Flanders, William's father-in-law, who then held the reins of government, favoured the duke's levies both in France and Flanders; and the emperor Henry IV. besides giving all his vassals leave to embark in this expedition, which so much engaged the attention of Europe, promised his protection to the duchy of Normandy during the absence of the duke, and thereby enabled him to draw his whole strength to the attack of England. But William's most important ally was pope Alexander II. who had a mighty influence over the warriors of that age; and who, besides being flattered by an appeal which William had made to the court of Rome in favour of his undertaking, at a time when this pontiff wanted to be the arbiter of princes, foresaw that if the French and Norman armies were successful in their enterprises, they would import into England, which still maintained some degree of independence in ecclesiastical matters, a more devoted reverence to the Holy See. He therefore declared

immediately in favour of William's claim: pronounced excommunication against Harold and his adherents, and in order more particularly to encourage the duke, he sent him a consecrated banner, and a ring with one of St. Peter's hairs in it. Thus all the ambition and violence of this invasion were covered safely over with the broad mantle of pretended religion.

The Norman fleet, which consisted of 300 vessels, great and small, and carried an army of 60,000 men, selected by William from those numerous supplies that courted his service, had been assembled early in the summer, and put to sea soon after: but being long detained by contrary winds, the troops began to imagine that heaven had declared against them, and that, notwithstanding the pope's benediction, they were destined to destruction. The wind, however, fortunately changed on the eve of the feast of St. Michael, the tutelar saint of Normandy; and the soldiers and their bold leader, who had an equal contempt of real, and a dread of imaginary dangers, fancying they saw the hand of providence in the cause of their former terrors, set out with the greatest alacrity, and safely arrived at Pevensey in Sussex; where the troops quietly disembarked. The duke himself had the misfortune to fall, as he leaped ashore; a circumstance, which, considering the superstition of the times, might have been construed to his disadvantage, but which he had the presence of mind to turn in his favour, by calling aloud, "I have taken possession of England!" and a soldier, running to a neighbouring cottage, plucked some thatch, which he presented to his general, as giving him seisin of the kingdom.

The confidence of William and his followers was now so great, that when they heard even of Harold's victory over the Danes, instead of being discouraged, they seemed only to long, with more impatience, for the arrival of the English army. They had not long occasion to wait. Harold was at York when he received intelligence of the Norman invasion, and hastened by quick marches to meet his competitor. But on reviewing his forces, he found them much diminished, though he had been reinforced with fresh troops from London and other places. His victory proved his ruin: many of his bravest officers, and veteran soldiers, fell in the action; some returned from fatigue, and others secretly withdrew from discontent, because he had refused to distribute the Danish spoils among them: a conduct little suited to his usual generosity of temper, and which can only be accounted for from a desire of easing his people in the war that hung over them from Normandy, and which he foresaw must be attended with great expence.

From these and other circumstances, Gurth, the king's brother, a man of bravery and conduct, began to entertain apprehensions of the event; and represented to the king, that it would be better policy to prolong the war than to risk a general action, as the winter was approaching, when the enemy would suffer many hardships, while the English, better sheltered, and becoming every day more incensed against their invaders, would hasten from all quarters to his asssistance, and render his army invincible; or, if he thought it necessary to hazard a battle, he ought at least not to expose his person, that some resource might still be left for the liberty and independency of the kingdom. But Harold, deaf to all these arguments, rejected his bro-

ther's advice with disdain, and elated with past prosperity, as well as stimulated by his native courage, replied, that he would give battle in person, and convince his subjects, that he was worthy of the crown which they had set upon his head. With this resolution he drew near to the Normans, who had removed their camp to Hastings. He was even so confident of success, that he sent a message to the duke of Normandy, offering him a sum of money, if he would depart the kingdom without effusion of blood; and William, not to be behind him in vaunting, commanded him to resign the crown of England, to submit their cause to the arbitration of the pope, or to fight him in single combat. Harold replied, that the God of battles would soon be the arbiter of all their differences. Both armies now impatiently expected the awful decision; but night drawing on, it was deferred till morning. During this interval of darkness and suspense, the scene was very different in the two camps: the English spent the night in riot and feasting; the Normans, in prayer and preparations for battle. As soon as day began to appear, the duke assembled his principal officers, and made them a speech suitable to the occasion. He next divided his army into three lines: the first consisted of archers and light-armed infantry; the second was composed of his bravest battalions, heavy armed, and ranged in close order; the cavalry, at the head of which William placed himself, formed the third line, and was so disposed, that they stretched beyond the infantry, and flanked each wing of the army. He commanded the signal to be given; and the whole army, moving at once, and singing the celebrated song of Rowland, the fabulous nephew, but renowned captain of Charlemagne, advanced in order of battle. Harold, whose army was inferior to William's in number as well as in discipline, had seized the advantage of a rising ground; and having drawn some trenches to secure his flanks, seemed inclined to act upon the defensive, and to avoid all encounter with the Norman cavalry, to which his strength in horse was very unequal. The Kentish men were placed in the front, a post which they always claimed as their due: the Londoners guarded the standard; and the king, dismounting, placed himself in the centre, at the head of his infantry, expressing his resolution to conquer or die.

The first attack of the Norman foot was terrible: their archers sorely galled their adversaries; and, as the English ranks were close, the arrows did great execution. But Harold's army received the shock of the enemy undismayed; and after a furious struggle, which long remained undecided, the Normans began to give ground. Confusion was spreading from rank to rank; when William, who found himself on the brink of ruin, hastened with a select band to the relief of his broken forces. His presence restored the battle. The English were obliged to retire in their turn; but the duke finding they still made a vigorous resistance, aided by the advantage of ground, and animated by the example of their valiant prince, ordered his troops to make a hasty retreat, and allure their antagonists from their station by the appearance of flight. The artifice succeeded. Impelled by the enthusiasm of valour and the heat of action, the troops of Harold precipitately followed the Normans into the plain; while William instructed his infantry at once to face about on their pursuers, and the cavalry to make an assault upon their wings. The English were thrown into disorder, and driven back

with loss to the hill; where being rallied by the generalship of Harold, they were again able to maintain the combat. William tried the same stratagem a second time, and with equal success. Yet he still found a large body of English forces that remained firm around their prince, and seemed determined to dispute the field to the last man; when fortune decided a victory, which valour had left doubtful Harold, who had fought with unspeakable courage and personal prowess, from dawn until eve, was shot into the brains with an arrow, while bravely defending the royal standard at the head of his guards. His two gallant brothers, Gurth and Leofwin, also were slain; and the English army, dispirited by the loss of its leaders, gave way on all sides, and was pursued with great slaughter by the victorious Normans.

As the death of Harold placed a new race of princes on the throne, and introduced the language and laws of Normandy, it will not be improper in this place to examine the nature of the Anglo-Saxon government, which was completely overturned by this sudden and surprising revolution.

The Saxons, on their settlement in Britain, did not establish the same form of government with the other northern nations that seized the provinces of the Roman empire; but as they rather exterminated than subdued the natives, and were under few apprehensions from foreign enemies, they had no occasion to burden themselves with feudal services.

They therefore retained entire their civil and military institution: they transplanted into this island those principles of liberty and independency which they had so highly cherished at home, which had been transmitted to them from their ancestors, and which still continue to flourish among their descendants. Their original constitution was a kind of military democracy, in which the protection of the state was the voluntary care of its members, as every free man had a share in the government; and conquest was the interest of all, as all partook in the acquisitions. Their king, or chief, was only the first citizen of the community; his authority was extremely limited, and depended, as did his station, principally on his personal qualities. The succession was neither elective nor hereditary. A son who inherited his father's virtues and talents was sure to succeed to his sway; but if he happened to be weak, wicked, or under age, the next in blood was generally raised to the throne, or the person of most eminence in the state.

We owe to the masterly pen of Tacitus this account of the primitive government of the Saxons, who were a tribe of the antient Cimbri. Unfortunately the Saxon annals are too imperfect to enable us to delineate exactly the prerogatives of the crown, and the privileges of the people, after their settlement in Britain: the government might be somewhat different in the different kingdoms of the heptarchy, and might also undergo several changes before the Norman conquest; but of those changes we are in a great measure ignorant. We only know, that at all times, and in all the kingdoms, there was a national council, a Wittenagemot, or assembly of the wise men, whose consent was necessary to the enaction of laws, and to give sanction to the measures of public administration But who the constituent members of that assembly were has not hitherto been determined with certainty. The most probable conjecture however seems

to be, that it consisted of the nobility, dignified clergy, and all freeholders possessing a certain portion of land. The Saxons were divided into three orders of men; the nobles, the free, and the servile. These distinctions they brought into Britain with them. The nobles were called thanes, and were of two kinds, the greater and the lesser thanes: the latter seem to have had some dependence on the former, as the former had on the king, but of what nature is uncertain. The lower kind of freemen among the Saxons were denominated ceorles, and were chiefly employed in husbandry; whence a husband man and a ceorle came to be synonymous terms. They farmed the lands of the nobility or higher orders, and appear to have been removable at pleasure. But the slaves, or villains, were by much the most numerous class in the community; and being the property of their masters, were consequently incapable of holding any property themselves. They were of two kinds: household slaves, after the manner of the antients; and rustic slaves, who were sold and transferred, like cattle, with the soil. The long wars between the Saxons and the Britons, and afterwards between the different kingdoms of the heptarchy, seem to have been the cause of the disproportionate number of these unhappy men; for prisoners taken in battle were reduced to slavery by the laws of war, and entirely at the disposal of their masters.

The higher nobility and dignified clergy among the Anglo-Saxons, possessed a criminal jurisdiction within their own territories, and could punish, without appeal, such as they judged worthy of death. This was a dangerous privilege, and liable to the greatest abuse.

But although the Anglo-Saxon government seems at last to have become in some measure aristocratical, there were still considerable remains of the antient democracy. All the freeholders assembled twice a year in the county courts or Shiremotes, to receive appeals from the inferior courts; a practice well calculated for the preservation of general liberty, and for restraining the exorbitant power of the nobles. In these courts they decided all causes, ecclesiastical as well as civil; the bishop and alderman, or earl, presiding over them. The case was determined by a majority of voices, without much pleading, formality, or delay; the bishop and earl having no farther authority than to keep order among the freeholders, and offer their advice when necessary. Though it should therefore be granted, that the Wittenagemot was composed entirely of the greater thanes and dignified clergy, yet in a government where few taxes were imposed by the legislature, and few statutes enacted; where the nation was less governed by laws than by customs, which allowed much latitude of interpretation; the county courts, where all the freeholders were admitted, and which regulated all the daily occurrences of life, formed a wide basis for freedom.

The criminal laws of the Anglo-Saxons, as of most barbarous nations, were uncommonly mild; a compensation in money being sufficient for murder of any species, and for the life of persons of any rank, not excepting the king, and the archbishop, whose head, by the laws of Kent, was estimated higher than the king's. The price of all kinds of wounds was also settled: and he who was caught in adultery with his neighbour's wife, was ordered by the laws of Ethelbert to pay him a fine, and buy him another wife; a proof, though somewhat equivocal, of the estimation in which women were then held.

The punishments for robbery were various, but none of them capital. If any person could track his stolen cattle into another's ground, the owner of the ground was obliged to shew their track out of it, or pay the value of the cattle.

But if the punishments for crimes among the Anglo-Saxons were singular, their proofs were no less so. When any controversy about a fact was too intricate for their ignorant judges to unravel, they had recourse to what they called the judgment of God; or in other words, to chance. Their modes of consulting that blind divinity were various, but the most common was the ordeal. This method of trial was practised either by boiling water or red-hot iron: the water or iron was consecrated by many prayers, masses, fastings, and exorcisms; after which the person accused either took up with his naked hand, a stone sunk in the water to a certain depth, or carried the iron to a certain distance. The hand was immediately wrapped up, and the covering sealed for three days; and if on examining it there appeared no marks of burning or scalding, the person accused was pronounced innocent; if otherwise, was declared guilty. The same kinds of proofs, or others equally extravagant, obtained among all the nations on the continent; and money, in like manner, was every where the atonement for guilt, both in a civil and ecclesiastical sense.

Though the affairs of the Scots were frequently intermixed with those of the Anglo Saxons, and therefore partly related in the preceding pages, it may not be improper to give some concise view of their history, according to their own writers; since during this period it begins to have a little claim to authenticity.

The Scottish historians represent their ancestors as being totally defeated in a battle with Maximus, the murderer of Valentinian the third. Their king Eugene was slain, with the greater part of his nobility; and such of their countrymen as escaped the sword, were totally expelled from the island. Some of them took refuge in the Hebrides, and some in Scandinavia and Ireland, from whence they made frequent descents upon Scotland.

The Picts, who were now in alliance with the Romans, were at first mightily pleased with the victory they had gained over their antagonists; but being commanded to adopt the laws of the Romans, and to choose no king who was not sent them from Rome, they began to repent of their having contributed to the expulsion of the Scots; and in the year 421, when Autulphus, king of the Goths, sent over a body of exiled Scots to Britain, under Fergus, a descendant of the royal family of Scotland, the Picts instantly joined them against the common enemy. The consequence of this was the Britons were pushed to the last extremity, and obliged to implore the assistance of the Saxons. When the Saxons became the enemies of the Britons, the Scots joined in a strict alliance with the latter; and the famous king Arthur is said to have been assisted by the Scots in all his battles with the Saxons: neither does it appear that this league was ever dissolved again, though the united efforts of the Scots and Britons were not sufficient to preserve the independency of the latter.

The next remarkable event in the history of Scotland is the war with the Picts, which took place in the ninth century. The occasion of the quarrel was, that Dongal, king of Scotland, pretended a right to the Pictish throne; which, however, was rejected by the

Picts; upon which both parties had recourse to arms; but when every thing was ready for the campaign, Dongal was drowned in crossing the river Spay.

At this time the dominions of the Scots comprehended the western islands, together with the counties of Argyle, Knapdale, Kyle, Kintyre, Lochaber, and a part of Breadalbane; while the Picts possessed all the rest of Scotland, and part of Northumberland; so that the Picts seem to have been by much the most powerful people of the two. However, the Scots appear to have been superior in military skill; for Alpin, the successor of Dongal, having engaged the Pictish army near Forfar, after an obstinate engagement defeated them, and killed their king, though not without the loss of a great number of his own men.

The Picts chose Brudus, the son of their former king, to succeed him; but soon after deposed and put him to death, on account of his stupidity and indolence. His brother Kenneth shared the same fate, on account of his cowardice; till at last another Brudus, a brave and spirited prince, ascended the throne. Having raised a powerful army, he began with offering terms of peace to the Scots; which, however, Alpin rejected, and insisted upon a total surrender of his crown. Brudus on this endeavoured to procure the assistance of Edwin king of Northumberland. Edwin accepted the money; but pretending to be engaged in other wars, he refused the assistance which he at first promised. Brudus, not dismayed by this disappointment, marched resolutely against his enemies; and the two armies came to an engagement near Dundee. The superior skill of the Scots in military affairs was about to have decided the victory in their favour, when Brudus bethought himself of the following stratagem to preserve his army from destruction. He caused all the attendants, and even the women who attended his army to assemble and show themselves at a distance as a powerful reinforcement coming to the Picts: this struck the Scots with such a panic, that all the efforts of Alpin could not recover them; and they were accordingly defeated with great slaughter. Alpin himself was taken prisoner, and soon after beheaded by order of the conqueror. This execution happened at a place now called Pit alpy, but in former times Bas-alpin, which in the Galic language signifies the death of Alpin. His head was afterwards stuck upon a pole, and exposed on a wall.

Alpin was succeeded by his son Kenneth II. who being a brave and enterprising prince, resolved to take a most severe revenge for his father's death. The dispirited Scots were exceedingly averse to any renewal of the war; while, on the other hand, the Picts were so much elated, that they made a law, by which it became death for any man to propose peace with the Scots, whom they resolved to exterminate: and some of the nobility were expelled the council on account of their opposition to this law. The consequence of this was, that civil dissensions took place among them, and a bloody battle was fought between the opposite parties, before the Scots had thought of making any further resistance.

By these distractions, Brudus, who had in vain endeavoured to appease them, was so much affected that he died of grief; and was succeeded by his brother Drusken. The new prince also failed in his endeavours to accommodate the civil differences; so that the Scots, by gaining so much respite, at last began to recover from their consternation;

and some of them having ventured into the Pictish territories, carried off Alpin's head from the capital of their dominions, supposed to have been Abernethy. In the mean time, Kenneth found means to gain over the nobility to his side by the following stratagem; which, however ridiculous, is not incredible, if we consider the barbarism and superstition of that age. Having invited them to an entertainment, the king introduced into the hall where they slept, a person clothed in a robe made of the skins of fishes, which made such a luminous appearance in the dark, that it was mistaken for an angel or some supernatural messenger. To add to the terror of those who saw him, he denounced through a speaking trumpet the most terrible judgments, if war was not immediately declared against the Picts, the murderers of the late king. In consequence of this celestial admonition, war was immediately renewed with great vigour. The Picts were not deficient in their preparations, and had now procured some assistance from England.

The first battle was fought near Stirling; where the Picts, being deserted by their English auxiliaries, were utterly defeated. Drusken escaped by the swiftness of his horse, and a few days after made application to Kenneth for a cessation of hostilities; but as the Scottish monarch demanded a surrender of all the Pictish dominions, the treaty was instantly broken off. Kenneth pursued his good fortune, and conquered the counties of Merns, Angus, and Fife; but as he marched against Stirling, he received intelligence, that these counties had again revolted, and cut off all the garrisons which he had left, and that Drusken was at the head of a considerable army in these parts. On this Kenneth hastened to oppose him, and a negotiation again took place. The result was equally unfavourable with the rest. Kenneth insisted on an absolute surrender of the counties of Fife, Merns, and Angus; which being refused, both parties prepared for a decisive battle. The engagement was very bloody and desperate, the Picts fighting like men in despair. Drusken renewed the battle seven times; and at last was entirely defeated and killed, and the counties in dispute became the immediate property of the conqueror.

Kenneth did not fail to improve his victory, by reducing the rest of the Pictish territories; which he is said to have done with the greatest cruelty, and even to have totally exterminated the inhabitants. The capital, called Camelen, (supposed to have been Abernethy,) held out four months; but was at last taken by surprise, and every living creature destroyed. This was followed by the reduction of the Maiden castle, now that of Edinburgh; which was abandoned by the garrison, who fled to Northumberland.

After the reduction of these important places, the rest of the country made no great resistance, and Kenneth became master of all the kingdom of Scotland in the present extent of the word; so that he is justly to be esteemed the true founder of the Scottish monarchy. Besides this war with the Picts, Kenneth is said to have been very successful against the Saxons, though of those wars we have very little account. Having reigned 16 years in peace, after his subjugation of the Picts, and composed a code of laws for the good of his people, Kenneth died of a fistula, at Fort Teviot, near Duplin in Perthshire. Before his time the seat of the Scots government had been in Argyleshire;

but he removed it to Scone, by transferring thither the famous black stone, supposed to be the palladium of Scotland, and which was afterwards carried off by Edward I. of England, and lodged in Westminster Abbey.

Kenneth was succeeded by his brother Donald, who is represented as a man of the worst character; so that the remaining Picts, who had fled out of Scotland, were encouraged to apply to the Saxons for assistance, promising to make Scotland tributary to the Saxon power after it should be conquered. This proposal was accepted; and the confederates invaded Scotland with a powerful army, and took the town of Berwick; however, they were soon after defeated by Donald, who took also their ships and provisions. This capture proved their ruin; for some of the ships being laden with wine, the Scots indulged themselves so much with that liquor, that they became incapable of defending themselves; the consequence of this was, that the confederates, rallying their troops, attacked them in that state of intoxication. The Scots were defeated with excessive slaughter; 20,000 of the common soldiers lay dead on the spot; the king and his principal nobility were taken prisoners; and all the country from the Tweed to the Forth became the property of the conquerors. Still, however, the confederates found themselves unable to pursue their victory farther; and a peace was concluded on condition that the Saxons should become masters of all the conquered country. Thus the Forth and Clyde became the southern boundaries of the Scottish dominions. It was agreed that the Forth should from that time forward be called the Scots sea; and it was made capital for any Scotsman to set his foot on English ground.

They were to erect no forts near the English confines; to pay an annual tribute of a thousand pounds, and to give up 60 of the sons of their chief nobility as hostages. A mint was erected by the Saxon prince named Osbreth, at Stirling; and a cross raised on the bridge at that place, with an inscription implying, that this place was the boundary between Scotland and England.

After the conclusion of this treaty, so humiliating to the Scots, the Picts, finding that their interest had been entirely neglected, fled to Norway, while those who remained in England were massacred. Donald shared the common fate of unfortunate princes, being dethroned and shut up in prison, where he at last put an end to his own life, in the year 858.

Donald was succeeded by his nephew Constantine, the son of Kenneth Mac Alpin, in whose reign Scotland was first invaded by the Danes, who proved such formidable enemies to the English. This invasion is said to have been occasioned by some exiled Picts who fled to Denmark, where they prevailed upon the king of that country to send his two brothers, Hungar and Hubba, to recover the Pictish dominions from Constantine. These princes landed on the coast of Fife, where they committed the most horrid barbarities, not sparing even the ecclesiastics, who had taken refuge in the island of May, at the mouth of the Forth. Constantine defeated one of the Danish armies commanded by Hubba, near the water of Leven; but was himself defeated and taken prisoner by Hungar, who caused him to be beheaded at a place called the Devil's cave, in the year 874.

This unfortunate action cost the Scots 10,000 men: but the Danes seem not to have

purchased their victory very easily, as they were obliged immediately afterwards to abandon their conquests and retire to their own country. However, the many Danish monuments that are still to be seen in Fife, leave no room to doubt that many bloody scenes have been acted here between the Scots and Danes, besides that above-mentioned.

These wars between the Danes and Scots were carried on with but little intermission till the time of Duncan the first, who succeeded his grandfather Malcolm in the year 1034. Having suppressed an insurrection which broke forth in the beginning of his reign, he put himself at the head of an army, in which the thanes, Banquo and Macbeth, served under him, to oppose the Danes who had landed in Fife. The Danes were commanded by Sweyn, king of Norway, and eldest son of Canute. He proceeded with all the barbarity natural to his nation, putting to death men, women, and children who fell in his way. A battle was fought between the two nations near Culross, in which the Scots were defeated; but the Danes purchased their victory so dearly, that they could not improve it; and Duncan retreated to Perth, while Macbeth was sent to raise more forces. In the mean time Sweyn laid siege to Perth, which was defended by Duncan and Banquo. The Danes were so much distressed for want of provisions, that they at last consented to treat for peace, provided the pressing necessities of the army were relieved. The Scots historians inform us, that this treaty was set on foot in order to amuse Sweyn, and gain time for the stratagem which Duncan was preparing. This was no other than a barbarous contrivance of infusing intoxicating herbs into the liquors that were sent along with the other provisions to the Danish camp. These soporifics had their intended effect; and while the Danes were under their influence, Macbeth and Banquo broke into the camp, where they put all to the sword, and it was with difficulty that some of Sweyn's attendants carried him on board; and we are told that his was the only ship of all the fleet that returned to Norway. It was not long, however, before a fresh body of Danes landed at Kinghorn, in the county of Fife; but they were entirely defeated by Macbeth and Banquo. Such of the Danes as escaped fled to their ships; but before they departed they obtained leave to bury their dead in Inchcolm, a small island lying in the Forth, where one of their monuments is still to be seen.

Thus ended the formidable invasions of the Danes; after which Duncan applied himself to the administration of justice, and the reformation of the manners of his subjects. These designs were however rendered abortive by the murder of Duncan, the usurpation of Macbeth, and the civil commotions which succeeded. Malcolm, who was raised to the throne by the English valour, as we have already described, was king of Scotland at the time of the Norman invasion.

The island during this period may be considered as divided into the same three provinces which are now denominated Scotland, England, and Wales. The first of these appears to have been inhabited by three, or perhaps four, or even five distinct races of men; the three principal tribes by whom we know that this country was inhabited, were the Picts and Scots, whose limits have been already described, and the Anglo-Saxons, who occupied all to the south of the frith of Forth. With the two

former of these were undoubtedly mingled some British refugees, who fled northward to escape the fury of their conquerors, as well as many of the posterity of the Danish invaders. The Scots appear to have been early instructed in the Christian religion, and to have produced during this period several ecclesiastics of eminent learning and piety, who firmly opposed many encroachments of the Roman bishops, and laboured for the conversion of their Saxon neighbours with assiduity and success.

The Picts were instructed by St. Columba, who is said to have arrived from Ireland in the year 565, to have placed his principal residence in the island of Iona, and there to have established an abbey and an university, which was long resorted to by the religious of many nations, and considered as the centre of the celebrated Culdees. These Culdees were a sort of monkish priests, formerly inhabiting Scotland and Ireland. Being remarkable for the religious exercises of preaching and praying, they were called, by way of eminence, cultores Dei; i. e. worshippers of God, from whence is derived the word Culdees. They made choice of one of their own fraternity to be their spiritual head, who was afterwards called the Scots' bishop.

The Britons, previous to the invasion of the Saxons, are said to have been much degenerated from the piety of the primitive Christians, and to have been sunk, both clergy and laity, in universal depravity. As a scourge for these evils, say the historians of the times, the nation was so much depopulated by a dreadful pestilence, that those who survived were scarcely sufficient to bury the dead. Persisting in their vices, notwithstanding this terrible calamity, they were punished with one still more awful at the invasion of the Saxons; the whole island, from sea to sea, seemed to be one continued conflagration; houses, public buildings, and temples, were buried in their own ruins; the priests were murdered on the altars; the bishop and his flock perished in one promiscuous fate; some were driven to the mountains, and there massacred with the greatest barbarity, and their bodies exposed without interment. Those who at first escaped the barbarity of the Saxons, were obliged to leave their fastnesses by famine, and submit to the will of the victors, while others, who dreaded their fury and scorned their service, abandoned their country, and fled into foreign parts for refuge.

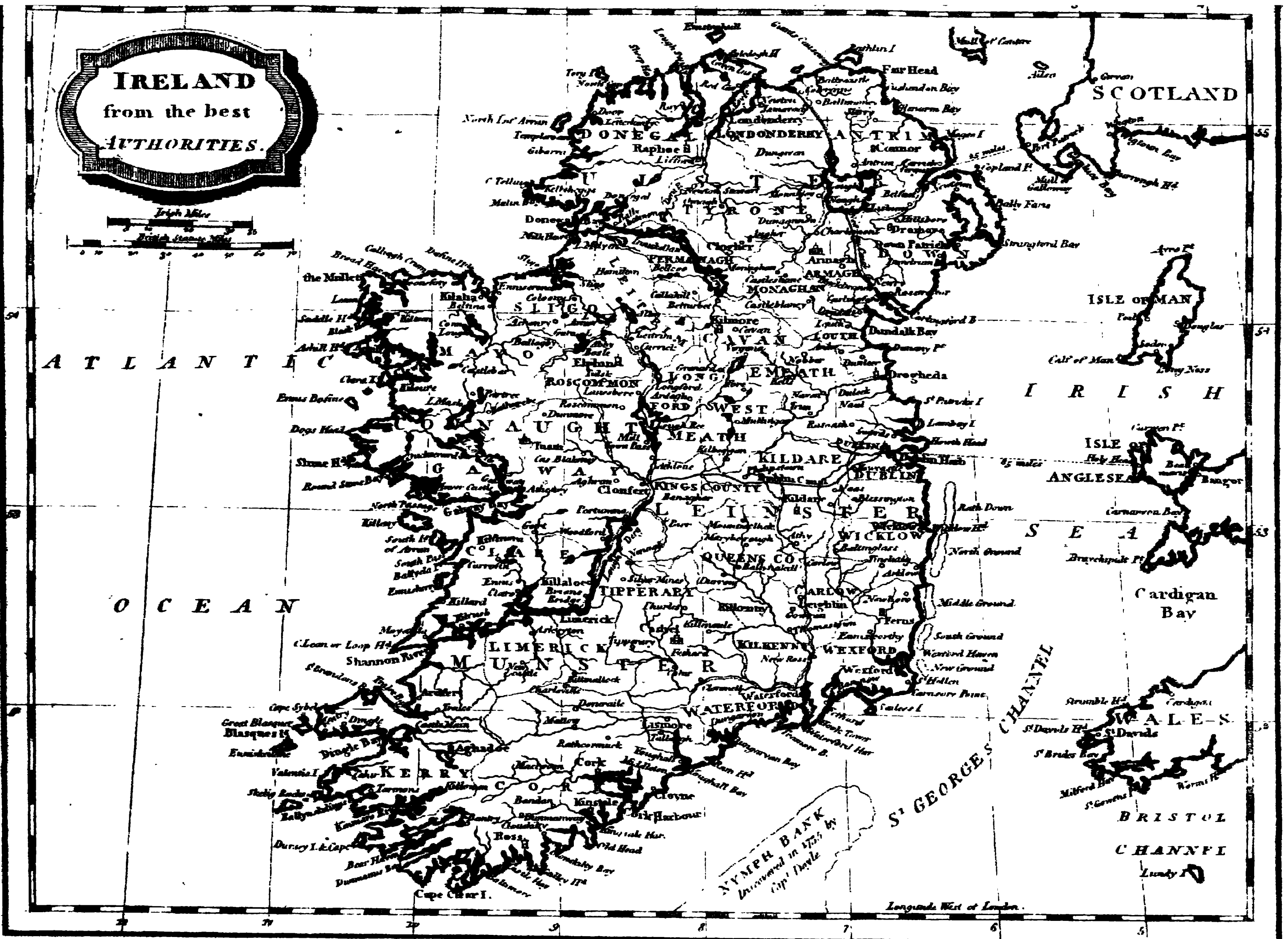
After the Britons had retired to Wales, they seem to have been roused from their former state of luxury and sloth; they cultivated learning at the seminaries of Bangor and Landaff; held several councils for the regulation of religious concerns; submitted with reluctance to the impositions of Rome, but at the same time rested contented with their own acquaintance with religion, without seeking to disseminate the blessings of the Gospel among the uncultivated, cruel, and oppressive Saxons.

Our Saxon ancestors were chiefly indebted for their conversion to the labours of certain Scottish missionaries, as well as to those of Augustine and his companions. Ethelbert, king of Kent, who reigned in the sixth century, was married to a Christian queen of exemplary piety. She so far recommended her religion to her husband by her conduct, as to prevail on him to suffer its introduction into this kingdom. Application having been made to pope Gregory, he deputed Augustine for this great work, who was joined in France by several French missionaries acquainted with the English tongue, and thereby capable of facilitating his design. He found, on his arrival, the same superstition as

had long prevailed among the northern nations, and will be described when we survey those parts of Europe in which it chiefly abounded. After a little time he persuaded Ethelbert to profess himself a Christian, and saw the example of the monarch eagerly imitated by his subjects.

The sees of Canterbury and Rochester were soon after founded, and in process of time the Christian name was assumed by all the other kingdoms of the Heptarchy.

The religion of Jesus was, however, too much adulterated by papal superstition, to work an effectual reformation in the conduct of men. The most deplorable ignorance reigned both among clergy and laity; the great were taught that founding churches and monasteries would expiate the most atrocious crimes; while the poor sought salvation by the observance of unmeaning ceremonies, and a stupid assent to all the dogmas of their teachers. These times, however, produced three extraordinary men, whose names deserve to be here recorded as the patrons of learning and virtue; these were Gildas, the British historian; the venerable Bede, an exemplary Saxon abbot; and the great Alfred, whose reputation as a king, a scholar, and a Christian, still shines undiminished by the lapse of time, or the excellencies which have adorned the characters of some of his successors. In his time this country had considerable commercial importance, and contained many large trading towns, and a greater number of inhabitants than could have been expected in such a hostile and turbulent period. London, York, Bristol, Exeter, and Norwich were great and populous cities; and the number of freemen habituated to the use of arms is supposed to have been now as great as England in succeeding times has ever brought into the field.


IRELAND
from the best
AUTHORITIES.
Irish Miles
British Statute Miles
ATLANTIC
OCEAN
IRISH
SEA
ST GEORGES CHANNEL
BRISTOL
CHANNEL
SCOTLAND
ISLE OF MAN
ISLE OF ANGLESEA
WALES
Cardigan Bay
ULSTER
LEINSTER
MUNSTER
CONNAUGHT
DONEGAL
LONDONDERRY
ANTRIM
TYRONE
DOWN
ARMAGH
FERMANAGH
MONAGHAN
CAVAN
LOUTH
SLIGO
MAYO
LEITRIM
ROSCOMMON
LONGFORD
WEST MEATH
EAST MEATH
GALWAY
KINGS COUNTY
QUEENS CO
KILDARE
DUBLIN
WICKLOW
CARLOW
KILKENNY
WEXFORD
TIPPERARY
CLARE
LIMERICK
WATERFORD
KERRY
CORK
NYMPH BANK
Discovered in 1735 by Capt Doyle
Longitude West of London
Published as the Act directs by J. Brightly & T. Kinnersley, Bungay, Suffolk, March 1806

CHAPTER V.

IRELAND.

Situation and extent, divisions, face of the country, natural history, curiosities, traditionary history, Mr. Whitaker's conjectures, continuation of the Irish history to the English invasion.

THE island of Ireland is situated on the west side of England, between 6° and 10° of west longitude, and between 51° and 55° 30′ north latitude, or between the middle parallel of the eighth clime, where the longest day is 16½ hours, and the 24th parallel, or the end of the tenth clime, where the longest day is 17½ hours.

The extent or superficial content of this kingdom is, from the nearest computation or survey, found to be in length 285 miles, from Fourhead north to Missenhead south; and from the east part of Down to the west part of Mayo, its greatest breadth, 160 miles; and to contain 11,067,712 Irish plantation acres, which make 17,927,864 acres of English statute measure, and is held to bear proportion to England and Wales as 18 to 30. Mr. Templeman, who makes the length 275, and the breadth 150 miles, gives it an area of 27,457 square miles, with 127 inhabitants to each. From the east part of Wexford to St. David's in Wales, it is reckoned 45 miles, but the passage between Donaghadee and Port Patrick in Scotland is little more than 20 miles, and the passage from Dublin to Holyhead in North Wales, about 52 miles.

The most common manner of dividing of Ireland is into four provinces, Leinster, Ulster, Connaught, and Munster.

I. Ulster lies on the north, is 68 miles long, 98 broad, and 460 in circumference. It contains 4,496,205 acres, 365 parishes, 29 boroughs, 55 baronies, 58 market towns, 6 bishoprics, Raphoe, Clogher, Drogmore, Kilmore, Down, and Derry; and one archbishopric, Armagh. In 1731, while the duke of Dorset was lord lieutenant, the inhabitants of Ireland were numbered, and there were found in this province 360,632 protestants, and 158,020 catholics. It contains the nine following counties, whose number of houses, with the names of their principal towns, are here annexed.

Counties.	Number of Houses.	Chief Towns.
1 Donegal	12357	Donnegal, Ballyshannon, Johnstown, Killybegs, Lifford, Lotterkenny, Raphoe, Rathmullen, Rathmelton, Buncranagh.
2 Londonderry	14527	Londonderry, Colerain, Newtown, Limavady, Magherafelt, Ballingderry.

Counties.	Number of Houses.	Chief Towns.
3 Antrim	20738	Carricfergus, Belfast, Lisburn, Antrim, Randalstone, Ballymenagh, Ballycastle, Connor, Leorne, Ballymony.
4 Tyrone	16545	Omagh, Dungannon, Augher, Strabane, Stewardstown, Clogher.
5 Fermanagh	5674	Enniskillen, Newtown, Cutler, Lisneskea, Clabby, Maguiresbridge.
6 Armagh	13124	Armagh, Charlemont, Lurgan, Portadow, Tanderagee, Loughgall, Legacurry, or Rich-hill.
7 Down	26090	Downpatrick, Newry, Dromore, Kellileagh, Bangor, Newtown, Hilsborough, Magherelin, Moira, Donaghadee, Rathfryland, Warrenstown.
8 Monaghan	26637	Monaghan, Glaslough, Clownish, Carrickmacross, Castleblaney.
9 Cavan	9268	Cavan, Kilmore, Belturbet, Cootehill, Killyshandra.
	Total 144961	

II. Leinster lies in the east, and is 104 miles in length, 55 in breadth, and 360 in circumference, comprehending 4,281,155 acres, it contains 858 parishes, 53 boroughs, 99 baronies, 63 market towns, 4 bishoprics, Kildare, Leighlin, Meath and Ossory, and one archbishopric, that of Dublin. At the time of the above-mentioned numeration, 203,087 of its inhabitants were protestants, and 447,916 catholics. It contains the twelve following counties.

Counties.	Number of Houses.	Chief Towns.
1 Louth	8150	Drogheda, Dundalk, Carlingford, Ardee, Dunleer.
2 East Meath	14000	Trim, Kells, Athboy, Navam, Duleek, Ratoath, Ardbraccan.
3 West Meath	9928	Mullingar, Athlone, Kelbeggan, Kinnegad, Fore.
4 Longford	6057	Longford, Granard, Landsborough, Johnstown.
5 Dublin	24145	Dublin, Swords, Newcastle, Balruddery, Finglass, Glasnevin.
6 Kildare	8887	Naas, Athy, Kildare, Castledermet, Kilcullen, Rathangan, Kilcock, Monastereven.

Counties.	Number of Houses.	Chief Towns.
7 King's County	9294	Philipstown, Bir, Tullamore, Banagher, Ballyboy, Geashill.
8 Queen's County	11226	Maryborough, Mountmellick, Portarlington, Ballynekill, Mountrath, Stradbally, Ballyroan, Abbyleix, Borris in Ossory.
9 Wicklow	7781	Wicklow, Arklow, Cary's Fort, Rathdrum, Bray, Blessington, Dunlavan, Baltinglass, Carnew.
10 Carlow	5444	Carlow, Old Leighin, Leighinbridge, Hacketstown, Bagnalstown, Clonegall.
11 Wexford	13015	Wexford, Enniscorthy, New Ross, Fethard, Gorey, Bannow, Clonmines, Taghmon, Duncannon, Ferns.
12 Kilkenny	3231	Kilkenny, St. Canice, Thomastown, Callan, Gowran, Knocktopher, Innistiege, Castlecomber, Ballyragget.
	120851	

III. Munster is situated in the south of Ireland, is 100 miles long, 107 broad, and 600 in circumference. It contains 5,329,146 acres, 740 parishes, 26 boroughs, 63 baronies, five bishoprics, Cork, Cloyne, Waterford, Limerick, and Killaloe, with the archbishopric of Cashel. In 1731 it had 115,130 protestants and 482,044 catholics. It contains the six following counties.

Counties.	Number of Houses.	Chief Towns.
1 Cork	47334	Cork, Bandon, Cloyne, Mallow, Ross, Baltimore, Yonghall, Kinsale, Cloughnakilty, Charloville, Castlemartyr, Middleton, Rathcormuck, Donerail, Bantry, Skibereen, Dunmanway, Macrempo, Buttevant, Kanturk, Castlelyons, Curryglass, Kilworth, Mitchestown, Fermoy, Inniskean, Innishannen, Timoleague, Newmarket, Ballyclough, Annagh, Douglass.
2 Waterford	9485	Waterford, Dungarvan Lismore, Tallagh, Passage, Caperquin.
3 Tipperary	18325	Clonmel, Cashel, Tipperary, Carrick, Thurles, Nenagh, Feathard, Burraskean, Roscrea, Clegheen, Silvermines, Cullen, Cahir.

station
to her

Counties.	Number of Houses.	Chief Towns.
4 Limerick	19380	Limerick, Killmallock, Askeaton, Rathkeal, Newcastle, Hospital, Bruff, Kilfinan.
5 Kerry	11653	Tralee, Dingle, Iereach, Ardfert, Aghadae, Killarney, Castle Island, Lixnaw, Listowell.
6 Clare	11381	Ennis, Killaloe, Bryansbridge, Kilfenora, Sixmilebridge, Newmarket, Corresin.
	117558	

IV. Connaught lies in the west of Ireland, is 90 miles long, 80 broad, and 500 in circumference. It contains 3,681,746 acres, 330 parishes, 10 boroughs. 43 baronies, three bishopricks, Clonfert, Elphin, and Killala, and one archbishopric, Tuam; in 1731 it had 21,604 protestants and 221,780 catholics, and it contains the five following counties.

Counties.	Number of Houses.	Chief Towns.
1 Galway	15576	Galway, Loughrea, Athenry, Tuam, Clenfert, Eyrecourt, Gort.
2 Roscommon	8780	Roscommon, Abbyboyle, Tulsk, Elphin, Ballinasloe, Castlereagh, Athlone.
3 Mayo	15089	Castlebar, Ballinrobe, Foxford, Killala, Newport, Ninola, Ballina.
4 Sligo	5970	Sligo, Coloony, Achonry.
5 Leitrim	5156	Leitrim, Jamestown, Carrick.
	50571	

The numerous rivers, enchanting lakes, spacious bays, commodious havens, harbours, and creeks, with which Ireland abounds, greatly enrich and beautify this country. The Shannon issues from Lough Allen, in the county of Leitrim, serves as a boundary between Connaught and the three other provinces; and, after a course of 150 miles, forming in its progress many beautiful lakes, falls into the Atlantic ocean, between Kerry-point and Loop-head, where it is nine miles broad. The navigation of this river is interrupted by a ridge of rocks, spreading quite across it, south of Killaloe; but this might be remedied by a short canal, at the expence of 10 or 12,000*l.*; and communication might also be made with other rivers, to the great benefit of the nation: the Ban falls into the ocean near Colraine; the Boyne falls into St. George's channel at Drogheda, as does the Liffey at the bay of Dublin, and is only remarkable for watering that capital, where it forms a spacious harbour: the Barrow, the Nore, and the Suir, water the south part of the kingdom, and, after uniting their streams below Ross, fall into the channel at Waterford-haven.

But the bays, havens, harbours, and creeks, which every where indent the coast, form the chief glory of Ireland, and render that country, beyond any country in Europe, best fitted for foreign commerce. The most considerable are those of Carrickfergus, Strangford, Dundrum, Carlingford, Dundalk, Dublin, Waterford, Dungarvan, Cork, Kinsale, Baltimore, Glandore, Dunmanus, Bantry, Kenmare, Dingle, Shannonmouth, Galway, Sligo, Donegal, Killibegs, Lough-Swilly, and Lough-Foyle.

Ireland contains a vast number of lakes, or, as they were formerly called, loughs, particularly in the provinces of Ulster and Connaught. Many of them produce large quantities of fine fish; and the great lake Neagh, between the counties of Antrim, Down, and Armagh, is remarkable for its petrifying quality. Some of the Irish lakes afford the most beautiful and romantic prospects, particularly that of Killarney, which takes its name from a small town in the county of Kerry. This lake, which may be divided into three, is entirely surrounded with mountains, rocks, and precipices, the immense declivities of which are covered with woods, intermixed with evergreens, from near their tops to the lakes themselves; among which are a number of cascades tumbling over the precipices, some from heights of little less than 300 feet. On the top of one of the surrounding mountains is a small round lake, about a quarter of a mile in diameter, called the Devil's Punch-Bowl. From the surface of the lake to the top of the cavity or brim of the bowl, may be about 300 yards; and when viewed from the circular top, it has a most astonishing appearance. The depth of it is vastly great, but not unfathomable, as the natives pretend. The discharge of the superabundant waters of this bowl, through a chasm into the middle lake, forms one of the finest cascades in the world, visible for 150 yards. The echoes among the hills surrounding the southern parts of the lake, which is mostly inclosed, are equally delightful and astonishing. The proprietor, the earl of Kenmore, has placed some cannon in the most proper places, for the amusement of travellers; and the discharge of these pieces is tremendous, resembling most the rolling of a violent peal of thunder, which seems to travel the surrounding scenery, and die away among the distant mountains. Here also musical instruments, especially the horn and trumpet, afford the most delightful entertainment, and raise a concert superior to that of a hundred performers. Among the vast and rugged heights that surround the lake, is one [illegible] rock, the [illegible] towards the water is a most horrid precipice [illegible] name from the number of those birds, which have their nests in [illegible]

The Irish language has been more happy in distinguishing [illegible] perhaps any other. A knock signifies a low hill, unconnected [illegible] [illegible] gradually ascending [illegible] [illegible] a pinnacle, or [illegible] The two last [illegible] [illegible]

Ireland, [illegible] when compared with some other countries, is far from being [illegible] Mourne and Iveagh, in the county of Down, are [illegible] Slieve Donard [illegible]

calculated at a perpendicular height of 1056 yards. Many other mountains are found in Ireland, which contain beds of minerals, coals, stone, slate, and marble, with veins of iron, lead, and copper.

The chief forests in Ireland lie in Leinster, the king's and queen's counties, and those of Wexford and Carlow. In Ulster there are great forests, as in the county of Donegal, and in the north part of Tyrone ; also in the county of Fermanagh, along Lough-Earne, and in the north part of the county of Down, wherein is some good timber ; and the oak is esteemed as good as any of the English growth, and as fit for ship-building.

The climate of Ireland differs not much from that of England, excepting that it is more moist, the seasons in general being much wetter. From the reports of various registers, it appears that the number of days in which rain had fallen in Ireland was much greater than in the same years in England.

" The circumstance, says Mr. Young, which strikes me as the greatest singularity of Ireland, is the rockiness of the soil, which should seem at first sight against that degree of fertility; but the contrary is the fact. Stone is so general, that I have good reason to believe the whole island is one vast rock of different strata and kinds, rising out of the sea. I have rarely heard of any great depths being sunk without meeting with it. In general it appears on the surface in every part of the kingdom ; the flattest and most fertile parts, as Limerick, Tipperary, and Meath, have it at no great depth, almost as much as the more barren ones."

" May we not recognise in this the hand of bounteous providence, which has given perhaps the most stony soil in Europe to the moistest climate in it ? If as much rain fell upon the clays in England (a soil very rarely met with in Ireland, and never without much stone), as falls upon the rocks of her sister island, those lands could not be cultivated. But the rocks here are clothed with verdure ; those of lime-stone, with only a thin covering of mould, have the softest and most beautiful turf imaginable."

" The rockiness of the soil in Ireland is so universal, that it predominates in every sort. One cannot use with propriety the terms clay, loam, sand, &c. it must be a stony clay, a stony loam, a gravelly sand. Clay, especially the yellow, is much talked of in Ireland, but it is for want of proper discrimination. I have once or twice seen almost a pure clay upon the surface ; but it is extremely rare. The true yellow clay is usually found in a thin stratum, under the surface mould, and over a rock ; harsh, tenacious, stony, strong loams, difficult to work, are not uncommon, but they are quite different from English clays."

" Friable sandy loams, dry, but fertile, are very common, and they form the best soils in the kingdom for tillage and sheep. Tipperary and Roscommon abound particularly in them. The most fertile of all are the bullock pastures of Limerick, and the banks of the Shannon in Clare, called Corcasses. These are a mellow, putrid, friable loam."

" Sand, which is so common in England, and yet more common through France, Germany, and Poland, quite from Gibraltar to Petersburgh, is no where met with in

Ireland; except in narrow slips of hillocks, upon the sea-coast. Nor did I ever meet with or hear of a chalky soil."

"Besides the great fertility of the soil, there are other circumstances which come within my sphere to mention. Few countries can be better watered by large and beautiful rivers; and it is remarkable that by much the finest parts of the kingdom are on the banks of these rivers. Witness the Suir, Blackwater, and Liffy, the Boyne, the Nore, the Barrow, and part of the Shannon; they wash a scenery that can hardly be exceeded. From the rockiness of the country, however, there are few of them that have not obstructions, which are great impediments to inland navigation."

"The mountains of Ireland give to travelling that interesting variety, which a flat country can never abound with; and, at the same time, they are not in such number as to confer the character of poverty which usually attends them. I was either upon or very near the most considerable in the kingdom, Maugerton, and the Reeks in Kerry; the Galties, in Cork; those of Mourne, in Down; Crow-Patrick, and Nephin, in Mayo; those are the principal in Ireland; and they are of a character in height and sublimity, which should render them the object of every traveller's attention. The soil, though rocky, is extremely fertile, perhaps beyond that of England itself, when properly cultivated."

"Pasturage, tillage, and meadow ground abound in this kingdom; but of late, tillage was too much discountenanced, though the ground is excellent for the culture of all grains; and in some of the northern parts of the kingdom, abundance of hemp and flax are raised, a cultivation of infinite advantage to the linen manufacture. Ireland rears vast numbers of black cattle and sheep, and the Irish wool is excellent. The prodigious supplies of butter and salt provisions, (fish excepted) shipped at Cork, and carried to all parts of the world, afford the strongest proof of the natural fertility of the Irish soil."

The bogs wherewith Ireland is in some places overgrown, are not injurious to the health, as is commonly imagined; the watery exhalations from these are neither so abundant nor so noxious as those from marshes, which become prejudicial from the various animal and vegetable substances which are left to putrify as soon as the waters are exhaled by the sun. Bogs are not, as one might suppose from their blackness, masses of putrefaction; but, on the contrary, they are of such a texture, as to resist putrefaction above any other substance we know of. A shoe, all of one piece of leather, very neatly stitched, was taken out of a bog some years ago, yet entirely fresh; from the very fashion of which, there is scarce room to doubt that it had lain there some centuries. Butter, called rouskin, hath been found in hollowed trunks of trees, where it had been hid so long, that it become hard and almost friable, yet not devoid of unctuosity; that the length of time it had been buried was very great, we learn from the depth of the bog, which was ten feet, that had grown over it. But the common phenomenon of timber-trees dug out of these bogs, not only sound, but also so embalmed as afterwards to defy the injuries of time, demonstrate the antiseptic quality of them. The horns of the moose-deer must have lain many centuries in a bog; for the Irish histories do not recognize the existence of the animal whereon they grew. Indeed, human bodies have, in many

places, been dug up entire, which must have lain there for ages. The growth of bogs, however, is variable in different places, from the variety of conditions in the situation, soil, humidity, and quantity of vegetable food; in some places it is very rapid, in others very slow; and therefore their altitudes cannot afford any certain measure of time. In the manufacturing counties of the north, peat-fuel has become so scarce, that turburies let from five to eight guineas an acre. In some places they are so eradicated, there does not remain a trace of them, the ground being now converted into rich meadows and sweet pastures.

The subterranean caverns in this country, particularly those near Kilkenny, are very remarkable, scarcely less curious than those of Antiparos in the Archipelago. Their internal appearances impress upon the spectators the idea of grand gothic structures, gaily diversified with innumerable crystalline and white petrifactions, pendant from the roof like icicles, or encrusted on the sides and floor in the stile of rustic ornament. The passages into some of the caverns are so very low, that the curious have been obliged to creep through them, in these they have proceeded until they have heard the noise of a subterraneous river, but none have ventured farther.

The Giant's Causeway, in the county of Antrim, has been accounted the greatest natural curiosity in Ireland, being the most remarkable one of its kind in the known world. The name of it may naturally convey to us the idea of some stupendous work of art; and as such it seems to have been considered in the days of ignorance, when the name was first applied; modern philosophy however looks on it with a different eye: to conceive a proper idea of this unparallelled curiosity, we may imagine an approach to it from the sea; its first apppearance is that of a bold rocky shore, with extensive ranges of shelving, on which people may walk.

The rocks, instead of being disposed in laminæ, or strata, form basaltes or angular columns: the columns generally are pentagonal, or have five sides, and are so closely attached to each other, that, though perfectly distinct from top to bottom, scarcely any thing can be introduced between them: this extraordinary disposition of the rocks continues to the water's edge, and under the sea, it also obtains in a small degree on the opposite shore of Scotland.

The crystallization of salts in the works of creation, as well as under a chemical process, assumes certain regular and determined forms, as cubes, various sorts of pyramids, parallelopipeds, &c.; and we might imagine that this celebrated promontory, made up of these innumerable massive columns of stone, owing their origin to some similar operations in nature, were not at all more wonderful than the crystallization of salts, except as their stupendous size impresses such little beings as we are with amazement; but the causeway is still more curious in the little than the great: the columns themselves are not each of one solid stone in an upright position, but composed of several short lengths exactly joined, not with flat surfaces, as in works of art, but, what is most extraordinary, they are articulated into each other as a ball in a socket, the one end of the joint having a cavity, into which the convex end of the opposite is exactly fitted; this is not visible but by disjointing the two stones: the depth of the concavity or convexity is generally from three to four inches; and what is still farther remarkable,

of the joint, the convexity and the corresponding concavity is not conformed to the external angular figure of the column, but exactly round, and as large as the size of the column will admit. It is still further remarkable, that the articulations of these joints are frequently inverted. In some the concavity is upwards, in others the reverse.

The animal, vegetable, and mineral productions of Ireland so nearly resemble those of England as not to require any particular description. It is therefore sufficient to observe, that rabbits are said to be more numerous in Ireland than in England, and that fish are very plentiful on its coasts.

The opinion that no venemous animals can subsist in Ireland is now generally rejected as a fable.

The antient history of this island is involved in so much obscurity, that it has been the object of contention among the antiquarians for upwards of a century and a half. The Irish historians pretend to very great antiquity. According to them, the island was first inhabited about 322 years after the flood. At that time Partholanus the son of Scara landed in Munster on the 14th of May with 1000 soldiers, and some women from Greece. This voyage he had undertaken on account of his having killed his father and mother in his native country. The same historian informs us, that a great number of lakes broke out in Ireland during the reign of Partholanus, which had no existence when he came into the island, with many other particulars not worth mentioning. But the most surprising circumstance is, that about 300 years after the arrival of this Grecian colony, all of them perished by a plague, not a single person remaining to tell the fate of the rest; in which case, it is wonderful how the catastrophe should have been known.

After the extinction of this first colony, Ireland remained a perfect wilderness for 30 years; when another colony arrived from the east, under the direction of one Nemedius. He set sail from the Euxine sea with 30 transports, each manned with 40 heroes; and at last arrived on the coasts of Ireland, after a very tedious and strange navigation. During his reign also many lakes were formed in the country, which had no existence before; the most material circumstance, however, was an unsuccessful war in which he was engaged with some African pirates, who in the end enslaved his people. The victors proved such insupportable tyrants, that the Irish found themselves under a necessity of quitting the island altogether. They embarked on board a fleet of 1130 ships, under the command of three grandsons of Nemedius, viz. Simon Breac, To Chath, and Briatan Maol. The first returned to Greece, the second sailed to the northern parts of Europe, and the third landed in the north of Scotland, and from him the island of Britain is said to have taken its name, and the Welch their origin.

About 216 years after the death of Nemedius, the descendant of Simon Breac returned from Greece into Ireland. They were conducted by five princes of great reputation, who divided the island into five kingdoms, nearly equal in size. These

kingdoms were called, Munster, Deinster, Connaught, Meath, and Ulster; and the subjects of these kings are called by the Irish historians Firbolgs.

The Firbolgs were in process of time expelled or totally subdued, after the loss of 100,000 men in one battle, by the Tuath de Dannans, a nation of necromancers, who came from Attica, Bœotia, and Achaia, into Denmark; from Denmark to Scotland; and from Scotland to Ireland. These necromancers were so completely skilled in their art, that they could even restore the dead to life, and bring again into the field those warriors who had been slain the day before. They had also some curiosities which possessed a wonderful virtue. Those were a sword, a spear, a cauldron, and a marble chair; on which last were crowned first the kings of Ireland, and afterwards those of Scotland. But neither the powerful virtues of these Danish curiosities, nor the more powerful spells of the magic art, were able to preserve the Tuath de Dannans from being subdued by the Gadelians when they invaded Ireland.

The Gadelians were descended from one Gathelus, from whence they derived their name. He was a man of great consequence in Egypt, and intimately acquainted with Moses the Jewish legislator. His mother was Scota, the daughter of Pharaoh, by Niul the son of a Scythian monarch cotemporary with Nimrod. The Gadelians, called also Scots, from Scota abovementioned, conquered Ireland about 1300 B. C. under Heber and Heremon, two sons of Milesius king of Spain, from whom were descended all the kings of Ireland down to the English conquest, and who are therefore styled by the Irish historians, princes of the Milesian race.

From this period the Irish historians trace a gradual refinement of their countrymen from a state of the grossest barbarity, until a monarch, named Ollam Fodla, established a regular form of government, erected a grand seminary of learning, and instituted the Fes, or triennial convention of provincial kings, priests, and poets, at Feamor, or Tarah in Meath, for the establishment of laws and regulation of government. But whatever were the institutions of this monarch, it is acknowledged that they proved insufficient to withstand the wildness and disorder of the times. To Kimbath, one of his successors, the annalists give the honour of reviving them, besides that of regulating Ulster, his family province, and adorning it with a stately palace at Eamannia, near Armagh. His immediate successor, called Hugony, is still more celebrated for advancing the work of reformation. It seems, that, from the earliest origin of the Irish nation, the island had been divided into the five provincial kingdoms abovementioned, and four of these had been subject to the fifth, who was nominal monarch of the whole island. These four, however, proved such obstinate disturbers of the peace, that Hugony, to break their power, parcelled out the country into 25 dynasties, binding them by oath to accept no other monarch but one of his own family. This precaution proved ineffectual. Hugony himself died a violent death, and all his successors for a series of ages were assassinated, scarcely with one exception.

About 100 B. C. the pentarchal government was restored, and is said to have been succeeded by a considerable revolution in politics. The Irish bards had for many ages

dispensed the laws, and the whole nation submitted to their decisions; but as their laws were exceedingly obscure, and could be interpreted only by themselves, they took occasion from thence to oppress the people, until at last they were in danger of being totally exterminated by a general insurrection. In this emergency they fled to Convocar-Mac-Nessor, the reigning monarch, who promised them his protection in case they reformed; but at the same time, in order to quiet the just complaints of his people, he employed the most eminent among them to compile an intelligible, equitable, and distinct body of laws, which were received with the greatest joy, and dignified with the name of celestial decisions. These decisions seem to have produced but very little reformation among the people in general We are now presented with a new series of barbarities, murders, factions, and anarchy; and in this disordered situation of affairs it was, according to the Irish historians, that the chieftain mentioned by Tacitus addressed himself to Agricola, and encouraged him to make a descent on Ireland. This scheme happened not to suit the views of the Roman general at that time, and therefore was not adopted; and so confident are these historians of the strength of their country even in its then distracted state, that they treat the notion of its being subdued by a Roman legion and some auxiliaries (the force proposed to Agricola), as utterly extravagant; acquainting us at the same time, that the Irish were so far from dreading a Roman invasion, that they sailed to the assistance of the Picts, and having made a successful incursion into south Britain, returned home with a considerable booty.

In the same state of barbarity and confusion the kingdom of Ireland continued till the introduction of christianity by St. Patrick, about the middle of the fifth century. This missionary, acording to the adversaries of the Irish antiquity, first introduced letters into Ireland, and thus laid the foundation of a future civilization. On the other hand, the advocates for that antiquity maintain, that the Irish had the knowledge of letters, and had made considerable progress in the arts, before the time of St. Patrick; though they allow, that he introduced the Roman character, in which his copies of the scripture and liturgies were written. To enter into the dispute would be contrary to our plan. It is sufficient to observe, that, excepting by some of the Irish themselves, the history already given is generally reckoned entirely fabulous, and thought to have been invented after the introduction of christianity. An origin of the Irish nation hath been found out much nearer than Asia, Greece, or Egypt; namely, the island of Britain, from whence it is now thought that Ireland was first peopled. A dispute hath arisen concerning the place from whence the first emigrants from Britain set sail for Ireland. The honour of being the mother country of the Irish hath been disputed between the North and South Britains, Mr. Macpherson, has argued strenuously for the former, and Mr. Whitaker for the latter. For an account of their dispute, however, we must refer to the works of those gentlemen. Mr. Whitaker claims the victory, and challenges to himself the honour of being the first who clearly and truly demonstrated the origin of the Irish.

The name of Ireland, according to Mr. Whitaker, is obviously derived from the word Jar or Eir, which in the Celtic language signifies "west." This word was some-

times pronounced Iver, and Hiver; whence the names of Iris, Ierna, Juerna, Iverna, Hiberna, and Ireland; by all of which it hath at some time or other been known.

About 350 B. C. according to the same author, the Belgæ crossed the channel, invaded Britain, and seized the whole extended line of the southern coast, from Kent to Devonshire. Numbers of the former inhabitants, who had gradually retired before the enemy, were obliged at last to take shipping on the western coast of England, and passed over into the uninhabited isle of Ireland. These were afterwards joined by another body of Britons driven out by the Belgæ under Divitiacus, about 100 B. C. For two centuries and a half afterwards, these colonies were continually reinforced with fresh swarms from Britain; as the populousness of this island, and the vicinity of that invited them to settle in the one, or the bloody and successive wars in Britain during this period naturally induced them to relinquish the other: and the whole circuit of Ireland appears to have been completely peopled about 150 years after Christ; and as the inhabitants had all fled equally from the dominion of the Belgæ, or for some other cause left their native country, they were distinguished among the Britons by one general and very opposite name, viz. that of Scuites, or Scots, "the wanderers, or refugees."

Mr. Whitaker also informs us, "that in the times of the Romans, Ireland was inhabited by 18 tribes; by one upon the northern, and three on the southern shore, seven upon the western, six on the eastern, and one in the centre."

"Along the eastern coast, and the Vergivian or internal ocean, were ranged the Damnii, the Voluntii, and the Eblani, the Cancii, the Menapii, and the Coriondii. The first inhabited a part of the two counties of Antrim, and Down, extending from Fair-head, the most north-easterly extremity of the island, to Isamnum Promontorium, or the point of Ardglass haven in the county of Down; and having the Logia or Lagan, which falls into Carrickfergus bay, within their possessions, and Dunum or Down-patrick for their capital. The Voluntii possessed the coast from the point of that haven to the river Buvinda or Boyne, the remainder of Down, the breadth of Armagh, and all Louth; having the Vinderus or Carlingford river in their dominions, and the town of Laberus near the river Deva (Atherdee in the county of Louth) for their metropolis. And the Eblani reached from the Boyne to the Laebins, Laev-ui, Liffy; residing in East-Meath, and in the large portion of Dublin county which is to the north of this river; and acknowledging Mediolanum, Eblana, or Dublin, for their principal town. The Cancii spread from the Liffy to the Letrim, the Oboca of the antients; had the rest of Dublin county, and such parts of Wicklow as lie in the north of the latter; and owned Dunum or Rath Downe for their chief city. The Menapii occupied the coast betwixt the Letrim and Cancarne-point, all the rest of Wicklow, and all Wexford to the point; their chief town, Menapia, being placed upon and to the east of Modoria, Slanus, or Slane. And the Coriondii inhabited at the back of the Cancii and Menapii, to the west of the Slane and Liffy, and in all Kildare and all Catterlogn; being limited by the Boyne and Barrow on the west, the Eblani on the north, and the Brigantes on the south."

"Upon the southern shore and along the verge of the Cantabrian ocean, lay the Bri-

gantes, the Vodiæ, and the Ibernii. The first owned the rest of Wexford and all Waterford; extending to the Blackwater, Aven-More, or Dabrona, on the south-west having the great mouth of the Barrow with their territories, and Brigantia, Waterford, or some town near it, for their first city; and giving the name Brigus to the Suir, or Swire, their limitary stream on the north, and the appellation of Bergie to their own part of the county of Wexford. The Vodiæ possessed the shire of Corke from the Blackwater to the Ban, the river Kinsale, and the Dobona or Dubana of the antients; and affixed the name of Vodium Promontorium to the point of Ballycotton island. And the Ibernii inhabited the remainder of Corke, and all that part of Kerry which lies to the south-east of Dingle-sound; having Rusina or Ibaune for their capital, the Promontorium Austrinum or Missen-Head about the middle of their dominions, and the river Ibernus or Dingle sound for their northern barrier; and leaving their names to the three divisions Ibaune, Beare, and Iveragh."

"Upon the western shore of the island and along the Great Brittannic or Atlantic ocean, were the Lucanii or Lucenii, the Velaborii, and the Cangani, the Anterii, the Nagnatæ, the Hardinii, and Venienii. The Lucenii inhabited the peninsula of land that lies along the river Ibernus or Dingle-sound, and perhaps some adjoining parts of Kerry. The Velaborii ranged along the small remainder of the latter, and over the whole of Limerick to the Senus or Shannon; having the Durius or Casheen flowing through their dominions, and Regia, Limerick or some town near it, for their metropolis. And the latter was probably that city near Limerick, the site of which is still famous, and retains the appellation of Cathair, or the fortress; and where the remains of streets, and other marks of a town, may yet be traced. The Cangani lived in the county of Clare: Macolicum near the Shannon, perhaps Feacle or Melic, being their principal town; a headland in the bay of Galway, near Glaniny, being denominated Benisamnum Promontorium; and the adjoining isles of Arran called Insulæ Canganæ. The Anterii were settled in the county of Galway; from the sinus stretching as far as the Libnius, or the river that bounds the shire in that part; and possessing the small portion of Mayo which lies to the south of it. And these were subject to Anteriam, antiently Aterith, and now Athenree; and have left their name to the division of Athenree. The Naggatæ occupied the rest of the large county of Mayo, all Sligo and all Roscommon, all Letrim as far as Logh Allin; on the south-east, and all Fermanagh to Balyshannon and Logh Erne, being bounded by the Rhebius or river of Balyshannon, and the lake Rhebius or Logh Erne; having a deep bay, called Magnus Sinus, that curves along Mayo, Sligo, and Letrim counties; and acknowledging Naghat, Necmaht, or Alnecmaht, the town of the Nagnatæ, for their capital. And the Hardinii and Venienii were confederated together under the title of Venienian Nations, extended from Balyshannon to the North-Cape, and possessed all Donnegalle, except the two whole divisions of Raphoe and Enis-Owen, and the eastern part of Kilmacrenen. The Venienii lay along the immediate margin of the shore, giving name to the Promon-torium Venienium or Cape-Horn, and to the Insula Venicnia, or North-Arran island. And their

metropolis Rheba was seated upon the lake Rhebius, and in the country of the Hardinii on the south-east.

"Upon the northern shore and along the margin of the Deucaledonian ocean, were only the Robogdii; inhabiting the rest of Donnogalle, all Derry, and all Antrim to the Fair-Head, and the Domnii; and giving their own name to the former and the division of Raphoe. And they had the rivers Vidua or Shipharbour, Arigta or Logh Swilly, Dara-bonna or Logh Foile, and Banna or Bân, in their territories; and acknowledged Robogdium, Robogh, or Raphoe for their chief city."

"The central regions of the island, all Tyrone the remainder of Fermanagh and Letrim, all Monaghan, and the rest of Ardmagh; all Cavan, all Longford, and all West-Meath; and all the King's and Queen's county, all Kilkenny, and all Tipperary; were planted by the Scoti. The Shannon, Logh Allin, and Logh Erne, were their great boundaries on the west; the Barrow, Boyne, and Logh Neagh, on the east; the Swire and Blackwater on the south; and a chain of mountains on the north. And the two greatest of their towns were Rheba, a city seated like the Rheba of the Venicnians, upon the lake and river Rhebius, but on a different part of them, and somewhere in the north of Cavan; and Ibernia, a town placed a little to the east of the Shannen, and somewhere in the county of Tipperary."

Ireland is admitted by its own historians to have been a continued scene of civil commotion, massacre, and usurpation, till their internal strife was a little interrupted by the invasion of the Danes, about the end of the eighth century. At this time we are told that monarchical power was weaker by reason of the factions and assuming dispotism of the inferior dynasties; but that the evils of the political constitution had considerably subsided, by the respect paid to religion and learning. The first invasions of the Danes were made in small parties for the sake of plunder, and were repelled by the chieftain whose dominions were invaded. Other parties appeared in different parts of the island, and terrified the inhabitants by the havoc they committed. These were in like manner put to flight, but never failed to return in a short time: and thus was Ireland harrassed for the space of 20 years, before the inhabitants thought of putting an end to their intestine contests and uniting against the common enemy. The northern parties, either by force or treaty, gradually obtained some small settlements on the island, till at length Turges, a warlike Norwegian, landed with a powerful armament in the year 815. He divided his fleet and army, in order to strike terror in different quarters. His followers plundered, burned, and massacred, without mercy, and persecuted the clergy with peculiar cruelty. The Danes already settled in Ireland flocked to his standard, and he was thus enabled to seat himself in Armagh, from which he expelled the clergy, and seized their lands. The Irish in the mean time were infatuated by their private quarrel, till at last, after some ill conducted and unsuccessful efforts, they sunk into a state of abject submission, and Turges was proclaimed monarch of the whole island.

The new king proved such a tyrant, that he soon became intolerable. A conspiracy was formed against him; and he was seized by Milachline prince of Meathi in a time of apparent peace. An universal insurrection ensued; the Danes were massacred

or dispersed; their leader condemned to death for his cruelties, and drowned in a lake. The foreigners, however, were not exterminated, but the remains of them were allowed to continue on the Island as subjects or tributaries to some particular chieftains. A new colony soon arrived, but under a pretence of peaceable intentions and a design of enriching the country by commerce. The Irish through an infatuated policy, suffered them to become masters of Dublin, Limerick, Waterford, and other maritime places, which they enlarged and fortified with such works as had been unknown in Ireland. The Danes did not fail to make use of every opportunity of enlarging their territories, and new wars quickly ensued. The Irish were sometimes victorious, and sometimes not; but were never able to drive out their enemies, so that they continued to be a very distinguished sect, or tribe, in Ireland. The wars with the Danes were no sooner at an end, than the natives, as usual turned their arms against each other. The country was harrassed by the competitions of the chiefs, laws and religion lost their influence and the most horrid licentiousness and immorality prevailed. Thus the whole Island seemed ready to become a prey to the first invader, when an attempt was made upon it by Magnus, king of Norway. This attempt miscarried, through his own rashness; for, having landed without opposition, he advanced into the country without apprehension. The consequence was, that he was surrounded and cut to pieces with all his followers. His death, however, proved of little benefit to Ireland, the same disorders which had gradually reduced the kingdom to a state of extreme weakness, still continued to operate, and to facilitate the success of the English invasion which happened in the reign of Henry II.

During the interval between their conversion to christianity and their subjection to England, the Irish were considered as the most learned nation in Europe. Their learning, however, consisted in the discussion of subtile metaphysical questions, a scanty stock of Grecian literature, a very slight acquaintance with hebrew and a knowledge of the more simple and elementary parts of geometry. Among the Irish literati the highest place is due to John Scotus Erigena, the ornament of the court of Charles the bald, an eminent philosopher and learned divine, whose erudition was accompanied with uncommon marks of sagacity and genius, and whose various performances as well as his translations from the greek, gained him a shining and lasting reputation.

CHAPTER VI.

GREAT BRITAIN, AND IRELAND.-----*From the conquest 1066, to the signing Magna Charta 1215.*

NOTHING could exceed the astonishment of the English nation, when made acquainted with the issue of the unfortunate battle of Hastings, with the death of their king, and the slaughter of their principal nobility. And William, in order to terminate an enterprise, which he knew celerity and vigour only could render finally successful, instantly put his army in motion, and advanced by forced marches to London. His approach increased the general alarm and the divisions already prevalent in the English councils. The superior clergy, who even then were mostly French or Normans, began to declare in his favour; and the pope's bull, by which his undertaking was avowed and consecrated, was now offered as a reason for general submission. Other causes rendered it difficult for the English nation, destitute as it was of a head, to defend their liberties in this critical emergency. The body of the people had, in a great measure, lost their antient pride and independent spirit, by their recent and long subjection to the Danes; and as Canute had, in the course of his administration, much abated the rigors of conquest, and governed them equitably by their own laws, they regarded with less terror a foreign sovereign; and deemed the inconveniences of admitting the pretensions of William less dreadful than those of bloodshed, war, and resistance. A repulse, which a party of Londoners received from 500 Norman horse, renewed the terror of the great defeat at Hastings: the easy submission of all the inhabitants of Kent, was an additional discouragement to them; and the burning of Southwark before their eyes, made the citizens of London dread a like fate for their capital. Few men longer entertained any thoughts but of immediate safety and self preservation.

Stigard, archbishop of Canterbury, met the conqueror at Berkhamstead, and made submission to him: and before he reached London, all the chief nobility, with the weak Edgar Atheling, their lawful but deservedly neglected prince, came into William's camp, and declared their intentions of yielding to his authority. They requested him to accept the crown, which they now considered as vacant; and orders were immediately issued to prepare every thing for the ceremony of his coronation. It was accordingly performed in Westminster abbey, in presence of the most considerable nobility and gentry, both English and Norman, with seeming satisfaction. This appearance of satisfaction, on the part of the former, if it contained any sincerity, must have been the effect of the conciliating manner in which the coronation ceremony was conducted. The duke of Normandy took the usual oath administered to the Anglo-Saxon kings at their inauguration; namely, "to preserve inviolate the constitution and government according to the laws," before the crown was placed upon his head, and after the consent of all present had been asked and obtained.

William thus possessed of the throne, by a pretended will of King Edward, and an irregular election of the people, abetted by force of arms, retired to Barking in Essex; where he received the submissions of all the nobility, who had not attended his coronation, and whom he generally confirmed in the possession of their lands and dignities, forfeiting only the estates of Harold, and those of his most active adherents. Every thing wore the appearance of peace and tranquillity. The new sovereign seemed solicitous to unite, in an amicable manner the English and the Normans, by intermarriages and alliances; and all his subjects, who approached his person, were received with affability and respect. No signs of suspicion appeared even in regard to Edgar Atheling, the natural heir to the crown. On the contrary, the king confirmed him in the honours of earl of Oxford, conferred on him by Harold, and affected on all occasions to treat him with the greatest kindness, as nephew to the Confessor, his friend and benefactor. He also confirmed the liberties and immunities of London, and all the other cities of England; and seemed, in a word, desirous of resting every thing on ancient foundations. In his whole administration he bore the semblance of the lawful prince, not of the conqueror; so that the English began to flatter themselves they had only changed the succession of their sovereigns, a matter which gave them little concern, without injury to the form of their government. But William, notwithstanding this seeming confidence and friendship, which he expressed for his English subjects, took care to place all real power in the hands of the Normans, and still to keep possession of that sword to which he eventually owed his crown. He every where disarmed the inhabitants: he built fortresses in all the principal cities, where he quartered Norman soldiers; he bestowed the forfeited estates on the most powerful of his captains, and he established funds for the payment of his troops. While his civil administration wore the face of the legal magistrate, his military institutions wore those of a master and a tyrant. And by this mixture of rigour and lenity, he so subdued and composed the minds of the people of England, that he ventured to visit his native country within six-months after he had left it.

During the absence of William, the Normans whom he had settled in England oppressed their English neighbours; and thus provoked them to make an insurrection. These disturbances ceased on his return, and he not only pardoned the rebels who submitted themselves to his mercy, but ordered all his English subjects who had been arbitrarily expelled by the Normans to be restored to their possessions. The public discontents, however, daily increased; and the injuries committed and suffered on both sides, rendered the quarrel between the victors and the vanquished mortal. The insolence of imperious masters, dispersed throughout the kingdom, seemed intolerable to the natives, who took every opportunity to gratify their vengeance, by private murders and open rebellion.

Morcar and Edwin, with the assistance of Malcolm, king of Scotland, made an attempt on the north, but were soon obliged to cast themselves on the clemency of the conqueror.

The three sons of Harold landed in Devonshire, but found a body of Normans ready

to oppose them, and being defeated in several rencounters, sought shelter in their vessels and returned to their asylum in Ireland.

A fresh insurrection was the same year excited in the north, where the Northumbrians and Yorkshire-men, slew the governors of Durham and York, and received at the same time some Danish succours under the command of Osbert, brother of Sweyn king of Denmark, and being abetted by Edgar Atheling, who had sought refuge in Scotland, were easily excited to a general revolt.

All these attempts, however, were rendered abortive by the vigilance of William. and Edgar Atheling himself, growing weary of exile, again submitted, and was suffered to live unmolested in England.

William's seeming clemency, however, proceeded only from political considerations, or from his esteem of individuals: his heart was hardened against all compassion toward the English as a people; and he scrupled no measure, how violent soever, which seemed requisite to support his plan of tyrannical administration. Acquainted with the restless disposition of the Northumbrians, who had began to revolt, and determined to incapacitate them from ever more molesting him, he issued orders for laying waste that fertile country, which, to the extent of 60 miles, lies between the Humber and the Tees. The houses were reduced to ashes by the unfeeling Normans; the cattle were seized and driven away; the instruments of husbandry were destroyed; and the inhabitants were compelled either to seek a subsistence in the southern parts of Scotland, or to perish miserably in the woods from cold and hunger, which many of them chose rather to do than abandon their native soil. The lives of 100,000 persons are computed to have been sacrificed to this stroke of barbarous policy: which, by seeking a remedy for a temporary evil, inflicted a lasting wound on the power and populousness of the nation. But William was now determined to proceed to extremites against all the natives of England, and to reduce them to a condition in which they should be no longer formidable to his government. The insurrections and conspiracies, in different parts of the kingdom, had involved the bulk of the landholders, more or less, in the guilt of treason; and the king took advantage of executing against them, with the utmost rigour, the laws of forfeiture and attainder. Their lives were commonly spared, but their estates were confiscated, and either annexed to the royal domain, or conferred with the most profuse bounty on the Normans and other foreigners. Against a people thus devoted to destruction, any suspision served as the most undoubted proofs of guilt. It was crime sufficient in an Englishman to be opulent, noble, or powerful; and the policy of the king concurring with the rapacity of needy adventurers, produced an almost total revolution in the landed property of the kingdom. Antient and honourable families were reduced to beggary. The nobles were every where treated with ignominy and contempt: they had the mortification to see their castles and manors possessed by Normans of the meanest condition, and to find themselves excluded from every road that led either to riches or preferment.

The government which William substituted for that of the Anglo-Saxons was a rigid feudal monarchy, or military aristocracy, in which a regular chain of subordination

and service was established from the sovereign to the slave, and which, like all feudal governments, was attended with a grievous depression of the body of the people, who were daily exposed to the insults, violences, and exactions of its nobles, whose vassals they all were, and from whose oppressive jurisdictions it was difficult and dangerous to appeal.

This depression, as might be expected, was more compleat and humiliating in England, under the first Anglo-Norman princes, than in any other feudal government. William by his artful and tyrannical policy, by attainders and confiscations became in the course of his reign proprietor of almost all the lands in the kingdom. The lands, however, he could not retain, had he been even willing, in his own hands; he was under the necessity of bestowing the greater part of them on his Norman captains or nobles, the companions of his conquest and the instruments of his tyranny, who had led their own vassals to battle. But these grants he clogged with heavy feudal services, and payments or prostrations, which no one dared to refuse. He was the general of a victorious army, which was still obliged to continue in a military posture, in order to secure the possessions it had seized. And the Anglo Norman barons, and tenants in capite, by knight's service, who only held immediate of the crown, and with the dignified clergy, formed the national assembly, imposed obligations yet more severe on their vassals, the inferior landholders, consisting chiefly of their subalterns and unhappy english gentlemen, as well as on the body of the people, for whom they seemed to have no bowels of compassion.

The state of England in the latter part of the reign of William is thus described by an historian who was almost cotemporary with that prince. "The Normans had now fully executed the wrath of heaven upon the English. There was hardly one of that nation who possessed any power; they were all involved in servitude and sorrow; insomuch that to be called an englishman was considered as a reproach. In those miserable times many oppressive taxes and tyrannical customs were introduced. The king himself, when he had let his lands at their full value, if another came and offered more, and afterwards a third, and offered still more, violated all his former agreements, and gave them to him who offered most: and the great men were inflamed with such a rage for money, that they cared not by what means it was acquired. The more they talked of justice, the more injuriously they acted. Those whom they called justiciaries were the fountains of all iniquity. Sheriffs and judges, whose peculiar duty it was to pronounce righteous judgments, were the most cruel of all tyrants and greater plunderers than common thieves and robbers." The licentiousness of the Normans was equal to their oppression. They thought that all things ought to be subservient to their will and pleasure, and therefore not only seized the possessions of the vanquished, but invaded the honour of their matrons and virgins. Hence many young ladies, who dreaded such violence, were induced to seek shelter in convents, and even to take the veil as a farther security to their virtue.

William's next regulations regarded the church. He deposed Stigard, the primate, and several other English bishops, by the assistance of Ermonfroy, the pope's legate; and as

it was a fixed maxim in this reign as well as in some of the subsequent, that no native of the island should ever be advanced to any dignity, ecclesiastical, civil, or military, the king promoted Lanfrance, a Milanese monk, to the see of Canterbury. That prelate professed the most devoted attachment to Rome, which therefore daily increased in England, and became very dangerous to some of William's successors; but the arbitrary power of the Conqueror over the English, and his extensive authority over the Normans, kept them from feeling any inconvenience from it. He retained the clergy in great subjection, as well as his lay subjects, and would allow no person of any condition or character to dispute his absolute will and pleasure. None of his ministers or barons, whatever might be their offences, could be subjected to spiritual censures, until his consent was obtained. He prohibited his people to acknowledge any one for pope, whom he himself had not received; and he ordered, that all ecclesiastical canons, voted in any synod should be submitted to him, and ratified by his authority, before they could be valid. But the English had the cruel mortification to find, that their king's authority, how worthy soever of a sovereign, all tended to their oppression, or to perpetuate their subjection. William had even entertained the difficult project of totally abolishing their language. He ordered the English youth to be instructed in the French tongue, in all the schools throughout the kingdom. The pleadings in the supreme courts of judicature were in French; the deeds were often drawn in the same language, the laws were composed in that idiom. No other tongue was used at court: it became the language of all fashionable societies; and the natives themselves affected to excel in it. To this attempt of the conqueror, and to the foreign dominions so long annexed to the crown of England, we owe that predominating mixture of French at present to be found in our language. The attention of William was now called to the continent, where Fultre, count of Anjou, had seized on the province of Maine, which had fallen under the dominion of Normandy, by the will of Hubert the last count. This was the first continental quarrel in which the English were involved in consequence of their monarch's Norman possessions, we shall refer the history of these disputes to a more advanced part of this work and confine our attention for the present to the immediate concerns of the British isles.

The peaceable state of William's affairs now gave him leisure to finish an undertaking which proves his great and extensive genius, and does honour to his memory. It was a general survey of all the lands of England; their extent in each district, their proprietors, tenures, value; the quantity of meadow, pasture, wood, and arable land which they contained; and in some counties, the number of tenants, cottages, and slaves of all denominations, who lived upon them. This valuable piece of antiquity, called Domesday book, is still preserved in the Exchequer, and helps to illustrate to us the antient state of England.

William, like all the Normans, was much attached to the manly amusement of hunting: and his passion for this amusement he cruelly indulged at the expence of his unhappy subjects. Not contented with those large forests, which the Saxon kings possessed in all parts of England, he resolved to make a new forest near Winchester, the

usual place of his residence. Accordingly, for that purpose, he laid waste the country for an extent of 30 miles in Hampshire, expelling the inhabitants from their houses, seizing their property, and demolishing churches and convents, without making the sufferers any compensation for the injury. He also increased the rigour of the game laws, now become so grievous.

This monarch's death was occasioned by a quarrel not altogether worthy of his life. A witticism gave rise to war. William, who was become corpulent, had been detained in bed some time by sickness while in Normandy, a circumstance which gave Philip I. of France occasion to say, with that vivacity natural to his country, that he was surprised his brother of England should be so long in being delivered of his big belly. William, enraged at this levity, swore, by "the brightness and resurrection of God," his usual oath, that, as soon as he was up, he would present so many lights at Notre Dame, as would give little pleasure to the king of France, alluding to the usual practice, at that time of women carrying a torch to church after child-birth. Accordingly on his recovery, he led an army into the isle of France, and laid every thing waste with fire and sword But the progress of these hostilities was stopt, by an accident which put an end to the English monarch's life. His horse starting aside, he bruised his belly on the pummel of his saddle; and this bruise, joined to his former bad habit of body, brought on a mortification, of which he died, in the 63d year of his age. He left Normandy and Maine to his eldest son, Robert; he wrote to Lanfranc desiring him to crown William king of England; and he bequeathed to Henry the youngest of the three, the possessions of his mother Matilda.

William II. surnamed Rufus, or the Red, from the colour of his hair, was instantly crowned king of England, in consequence of his father's recommendatory letter to Lanfranc, the primate; and Robert, at the same time, took peaceable possession of Normandy. But this partition of the conqueror's dominions, though apparently made without any violence or opposition, occasioned in England many discontents, which seemed to promise a sudden revolution. The Norman barons who generally possessed large estates both in England and their own country, were uneasy at the separation of those territories, and foresaw that as it would be impossible for them to preserve long their allegiance to two masters, they must necessarily resign their antient property or their new acquisitions. Robert's title to Normandy they esteemed incontestible; his claim to England they thought plausible; and they all desired that this prince, who alone had any pretensions to unite the duchy and kingdom, might be put in possession of both. A comparison between the personal qualities of the two princes also led the malcontents to prefer the elder. Robert was brave, open, sincere, generous; whereas William, though not less brave than his brother, was violent, haughty, tyrannical, and seemed disposed to govern more by fear than the love of his people. Odo, bishop of Baieux, who had been released from prison on the death of the conqueror, enforced all these motives with the dissatisfied barons, and engaged many of them in a formal conspiracy to dethrone the king. Expecting immediate support from Normandy, the conspirators hastened to put themselves in a military posture:

and William, sensible of his perilous situation, endeavoured to provide against the threatened danger by gaining the affections of the native English; who zealously embraced his cause, upon receiving some general promise of good treatment, and leave to hunt in the royal forests, having now lost all hopes of recovering their antient liberties. By their assistance the king was enabled to subdue the rebels: but the Norman barons, who had remained faithful to him, only were the gainers. He paid no regard to the promises made to his English subjects, who still found themselves exposed to the same oppressions which they had experienced during the reign of the conqueror, and which were augmented by the tyrannical temper of the present moment. Even the privileges of the church, which were held so sacred in those days, formed but a feeble rampart against the usurpations of William; yet the terror of his authority, confirmed by the suppression of the late insurrections, kept every one in subjection, notwithstanding the murmurs of the clergy, and preserved general tranquillity in England. An accident put an end to his life, in the year 1100. He was engaged in hunting, the sole amusement, and, except war, the chief occupation of princes in those rude times, when this accident happened. Walter Tyrrel, a French gentleman, remarkable for his address in archery, attended him in that recreation, of which the new forest was the scene; and as William had dismounted after the chace, Tyrrel, impatient to shew his dexterity, let fly an arrow at a stag, which suddenly started before him. The arrow glancing against a tree, struck the king to the heart, and instantly killed him; while Tyrrel, without informing any one of the accident, put spurs to his horse, hastened to the sea-shore, embarked for France, and joined the crusade in an expedition to the Holy-land: a penance which he imposed on himself for this involuntary crime, and which was deemed sufficient to expiate crimes of the blackest dye. As William Rufus was never married, and consequently could leave no lawful issue, the kingdom of England now belonged to his brother Robert, both by the right of birth and of solemn compact, ratified by the nobility. But as prince Henry was hunting in the new forest when the king was slain, he immediately galloped to Winchester; secured the royal treasure, was saluted king, and proceeded to the exercise of the sovereign authority. Sensible, however, that a crown usurped against all the rules of justice would sit very unsteady on his head, Henry resolved, by fair professions at least, to gain the affections of all his subjects. Besides taking the usual coronation oath, to maintain the constitution, and to execute justice, he passed a charter, which was calculated to remedy many of the grievous oppressions complained of during the reign of his father and his brother: and he promised a general confirmation and observance of the laws of Edward the Confessor.

In order farther to establish himself on the throne, the king recalled archbishop Anselm, and reinstated him in the see of Canterbury. He also married Matilda, daughter of Malcolm III. king of Scotland, and niece to Edgar Atheling. And this marriage, more than any other measure of his reign, tended to endear Henry to his English subjects; who had felt so severely the tyranny of the Normans, that they reflected with infinite regret on their former liberty, and hoped for a more equal and

mild administration, when the blood of their native princes should be united with that of the new sovereigns. But the policy and prudence of Henry I. ran great hazard of being frustrated by the sudden appearance of his brother Robert who returned from the Holy-land about a month after the death of William II took possession of Normandy without resistance, and made preparation for asserting his title to the crown of England. The great reputation which Robert had acquired in the East favoured his pretensions; and the Norman barons, still impressed with apprehensions of the consequences of the separation of the duchy and kingdom, discovered the same discontent which had appeared on the accession of Rufus. Henry was, therefore in danger of being deserted by all his subjects; and it was only through the exhortations of archbishop Anselm, that they were engaged to oppose Robert, who had landed at Portsmouth The two armies continued some days in sight of each other without coming to action, and by the interposition of the same prelate, an accommodation was happily brought about between the brothers. In this treaty it was agreed, that Robert should resign his pretensions to England, and receive an annual pension of 3,000 marks; that if either of the princes died without issue, the other should succeed to his dominions; that the adherents of each should be pardoned, and restored to all their possessions, and that neither the king nor the duke should thenceforth countenance the enemies of each other, But these conditions, though so favourable to Henry, were soon violated by his rapacity and ambition. He restored indeed the estates of Robert's adherents, but took care they should not remain long in the undisturbed possession of them. Various pretences were formed for despoiling and humbling all who, in his opinion, had either inclination or abilities to disturb his government.

Henry soon after passed over into Normandy, on pretence of settling some disputes between his brother and his barons, brought over that generous but unfortunate prince a prisoner, and kept him in custody all the remainder of his life. He died in the castle of Cardiff in Wales, after enduring a captivity of 28 years. Thus did Henry seek the enlargement of his dominions at the expence of justice, mercy, and fraternal affection.

But his public prosperity was much overbalanced by a domestic misfortune. His son William, who had attained his 18th. year, had accompanied him into Normandy, but perished in his return, with all his retinue. The royal youth was anxious to get first to land; and the captain of his vessel, being intoxicated with liquor, heedlessly ran her on a rock, where she was immedaitely dashed to pieces. Besides the prince, above one hundred and forty young noblemen of the principal families of England and Normandy were lost upon this occasion. The king was so much affected by the news, that he is said never to have smiled more. As prince William left no children, Henry had no legitimate issue, except his daughter Matilda, whom he had betrothed, when a child, to the emperor Henry V. who also dying without children, the king bestowed his daughter on Geoffry Plantagenet, the eldest son of the count of Anjou, and endeavoured to secure her succession by having her recognized heiress of all his dominions: and he obliged the barons both of Normandy and England to swear fealty to her. After six years she was delivered of a son, who received the name of Henry; and the king's father, to insure

the succession, made all the nobility renew the oath of fealty, which they had already sworn to her, and also to swear fealty to her infant son. The joy of this event, and the pleasure of his daughter's company, made Henry take up his residence in Normandy; where he died in the 67th year of his age, and the 35th year of his reign, leaving his daughter Matilda heiress of all his dominions. He was one of the most able and accomplished princes that ever filled the English throne. possessing great qualities both mental and personal. His learning, which procured him the name of Beauclerc, or the fine scholar, would have given him an ascendancy in any condition.

The aversion of the feudal barons against female succession, prevailed over their good faith, and prepared the way for the usurpation of Stephen, count of Boulogne, son of the count of Blois, and grandson of the conqueror, by his daughter Adela. Stephen was a prince of vigour and ability: but the manner in which he had obtained the crown of England, obliged him to grant exorbitant privileges to the nobility and clergy, who might be said to command the kingdom. The barons built and fortified castles: garrisoned them with their own troops; and, when offended, bid their monarch defiance, while wars between themselves were carried on with the utmost fury in every quarter. They even assumed the right of coining money, and of exercising, without appeal, every act of jurisdiction; and the inferior gentry, and the people, finding no guardianship from the laws, during this total dissolution of sovereign authority, were obliged to pay court to some neighbouring chieftain, and to purchase his protection, not only by yielding to his exactions, but by assisting him in his rapine upon others.

The reign of Stephen was one continued series of commotions. He was himself taken prisoner by the empress, at the battle of Lincoln, but she lost by her haughty behavior all the advantages that she had attained by her successes. Stephen was soon after exchanged for earl Robert, Matilda's brother, who was no less the soul of one party, than Stephen was of the other. Henry the son of Matilda, proved a more formidable competitor for the crown of England, than his mother had ever been. By the right of his mother, the decease of his father, and his marriage with the divorced queen of France, he was possessed of very extensive continental dominions, and so great was the respect entertained for him in this island, that the archbishop of Canterbury refused to anoint Eustace, Stephen's son, as his successor, and made his escape beyond sea to avoid the fury of the enraged monarch. As soon as Henry was informed of these dispositions in the people, he invaded England. Stephen advanced with a superior army to meet him and a decisive action was every day expected, when the great men on both sides terrified with the prospect of further bloodshed and confusion, interposed with their good offices, and set on foot a negociation between the contending princes. The death of Eustace, which happened during the course of the treaty, facilitated its conclusion, and an accommodation was at last settled, by which it was agreed, that Stephen should possess the crown during his life; that justice should be administered in his name, even in the provinces that had submitted to his rival; and that Henry, on Stephen's death, should succeed to the kingdom of England, and William, Stephen's son, to Boulogne and his patrimonial estate.

The death of Stephen, which took place next year (1154) prevented those jealousies and feuds, which were likely to happen in so delicate a situation.

Henry was received in England with the acclamations of all orders of men, who joyfully swore to him the oath of allegiance: and he began his reign with re-establishing justice and good order, to which the kingdom had been long a stranger. For this purpose, he dismissed all those foreign mercenaries retained by Stephen; and that he might restore authority to the laws, he caused all the new erected castles, which had proved so many sanctuaries to rebels and free-booters, to be demolished. In order yet farther to conciliate the affections of his subjects, he voluntarily confirmed that charter which had been granted by his Grandfather, Henry, I.

The usurpations of the clergy had now become so many and great, that they were an insupportable burden upon the laity of England. They not only drew to themselves immense revenues for averting the wrath of heaven from other offenders, but themselves practised with impunity the most atrocious wickedness. To suppress these enormities, a council of barons and nobles were assembled by the king, at Clarendon, who voted the following laws without opposition.

"That no chief tenant of the crown shall be excommunicated, or have his lands put under an interdict, without the king's consent; that no appeals, in spiritual causes shall be carried before the Holy See, nor any clergymen be suffered to depart the kingdom, unless with the king's permission; that laymen shall not be accused in spiritual courts, except by legal and reputable witnesses; and lastly, that clergyman, accused of any crime, shall be tried in the civil courts." These constitutions gave rise to a very violent contest between the king and the church, which was terminated at length by the murder of Becket, the imperious archbishop of Canturbury, and the subsequent submission of Henry to the see of Rome.

The next affair which engaged the attention of Henry, was the conquest of Ireland. The state of that island, as has been already observed, was at this time exceedingly favourable for an invasion. The monarch enjoyed little more than a titular dignity over a number of chieftains, who all assumed the title and state of royalty, paid a precarious tribute to their superior, and united, if they were disposed to unite with him, rather as his allies than his subjects. Leinster was subject to Dermod, a fierce, haughty, and oppressive tyrant. His stature and bodily strength made him admired by the lower orders of people, his subjects and his donations recommended him to the clergy; but his tributary chieftains felt the weight of his pride and tyranny, and to them his government was extremely odious. Having seized the wife of O' Ruxre, king of Leitrim, he was expelled his dominions and obliged to seek refuge in England. Here his character was unknown and he was regarded as an injured prince, driven from his throne by an iniquitous confederacy. He procured the assistance of Richard Strongbow, earl of Chepstow, Robert Fitzstephen, and Maurice Fitzgerald, three able warriors whose estates were chiefly situated in Wales, obtained possession of his former dominions, and settled his English allies in Wexford and other parts of Ireland. Thus commenced the settlement of the English in Ireland, which was followed by a war between the settlers

and the natives, in which the former were generally victorious. Henry was unwilling his subjects should conquer for themselves, and therefore landed at the head of 500 knights and 4000 soldiers, and in a progress which he made through the island, had little other occupation than to receive the homage of his new subjects. He left most of the Irish chieftains or princes in possession of their antient territories; he bestowed lands on some of his English adventurers; and after a stay of a few months, returned to Britain, where his presence was much wanted; having annexed Ireland to the English empire.

Henry seemed now to have reached the pinnacle of human grandeur and felicity. His dangerous controversy with the church was at an end, and he appeared to be equally happy in his domestic situation, and his political government. But this tranquility was of short duration. Prince Henry at the instigation of Lewis VII. his father in law, insisted that his father should resign to him either the kingdom of England, or the duchy of Normandy: and the king's two younger sons, Geoffrey and Richard also leagued with the court of France, by the persuasions of their mother, queen Eleanor, whose jealousy when in years, was as violent as her amorous passions in youth.

Thus Europe saw with astonishment, the best and most indulgent of parents obliged to maintain war against his whole family; and what was still more extraordinary, several princes not ashamed to support this absurd and unnatural rebellion! Not only Lewis king of France, but William king of Scotland, Philip earl of Flanders, and several other princes on the continent, besides many barons, both English and Norman, espoused the quarrel of young Henry and his brothers.

In order to break that alarming confederacy, the king of England humbled himself so far as to supplicate the court of Rome. Though sensible of the danger of ecclesiastical authority in temporal disputes, he applied to the pope to excommunicate his enemies, and by that means reduce to obedience his undutiful children, whom he found such reluctance to punish by the sword. The bulls required were issued by Alexander III. but they not having the desired effect, Henry was obliged to have recourse to arms: and he carried on war successfully, and at the same time, against France, Scotland, and his rebellious barons in England and Normandy.

Mean while, the English monarch, sensible of his danger, and of the effects of superstition on the minds of the people, went bare-footed to Becket's tomb; prostrated himself before the shrine of the saint; remained in fasting and prayer during a whole day; watched all night the holy reliques; and assembling a chapter of the monks, put a scourge of discipline into each of their hands, and presented his bare shoulders to the lashes which these incensed ecclesiastics not sparingly inflicted upon him! Next morning he received absolution; and his generals obtained the same day, a great victory over the Scots, which was regarded as a proof of his final reconciliation with heaven, and with Thomas à Becket. The victory over the Scots was gained near Alnwick, where their king was taken prisoner; and the spirit of the English rebels being broken by this blow, the whole kingdom was restored to tranquility. It was deemed impious any longer to resist a prince, who seemed to be under the immediate protection of

heaven. The clergy exalted anew the merits, and the powerful intercession of Becket; and Henry, instead of opposing their superstition, politically propagated an opinion so favourable to his interests. Victorious in all quarters, crowned with glory, and absolute master of his English dominions, he hastened over to Normandy: where a peace was concluded with Lewis, and an accomodation brought about with his sons.

Having thus, contrary to all expectation, extricated himself from a situation, in which his throne was exposed to the utmost danger, Henry occupied himself for several years in the administration of justice, enacting of laws, and in guarding against those inconveniences which either the past convulsions of the state, or the political institutions of that age, rendered unavoidable. The success which had attended him in all his wars discouraged his neighbours from attempting any thing against him; so that he was enabled to complete his internal regulations without disturbance from any quarter. Some of these regulations deserve particular notice.

As the clergy, by the constitutions of Clarendon, which Henry endeavoured still to maintain, were subjected to a trial by the civil magistrate, it seemed but just to afford them the protection of that power to which they owed obedience: he therefore enacted a law, that the murderers of a clergyman should be tried before the justiciary, in the presence of the bishop or his official; and besides the usual punishment for murder, should be subjected to a forfeiture of their estates, and a confiscation of their goods and chattels. He also passed an equitable law, that the goods of a vassal should not be seized for the debt of his lord, unless the vassal was surety for the debt; and that, in case of insolvency, the rents of the vassals should be paid to the creditors of the lord, not to the lord himself.

The partition of England into four divisions, and the appointment of itinerant judges, learned in the law, to go the circuit in each division, and to decide the causes in the counties, after the example of the commissaries of Lewis VI. and the missi of Charlemagne, was another important ordinance of the English monarch; a measure which had a direct tendency to curb the oppressions of the barons, and to protect the inferior gentry or small landholders, and the common people in their property. And that there might be fewer obstacles to the execution of justice, he was vigilant in demolishing all the new erected castles of the nobility, in England as well as in his foreign dominions. Nor did he permit any fortress to remain in the custody of those he found reason to suspect.

But lest the kingdom should be weakened by this peaceful policy, Henry published a famous decree, called, an assize of arms; by which all his subjects were obliged to put themselves in a situation to defend themselves and the realm. Every person possessed of a single knight's fee, was ordered to have a coat of mail, a helmet, a shield, and a lance: and the same accoutrements were required to be provided by every one, whether nobleman or gentleman, for whatever number of knight's fees he might hold. Every free layman, who had rents or goods to the value of 16 marks, was to be armed in like manner; every one that had ten marks was obliged to have an iron gorget, a cap of iron, and a lance; and all burgesses were to have a cap of iron, a lance, and a coat thickly quilted with wool, tow, or some such materials, called a wambois.

The domestic troubles of Henry were not yet at an end. Philip II. of France basely encouraged the sons of the English monarch in another unnatural rebellion against their father. Young Henry and Geoffrey, the two eldest princes, soon after died, but the war was carried on by Richard the third son, who was assisted by his younger brother John. Their father was obliged at an advanced age, to arm in his own defence, and at last reduced to consent that Richard should receive the homage and fealty of all his subjects, that his associates should be pardoned, and that the king of France should be reimbursed the expenses of the war.

But the mortification which Henry, who had been accustomed to give law to his enemies, received from these humiliating conditions, was light, in comparion of what he experienced from another cause on that occasion. When he demanded a list of the persons, to whom he was to grant an indemnity for confederating with Richard, he was astonished to find at the head of them the name of his favourite son John, who had always shared his confidence, and who, on account of his influence with the king, had often excited the jealousy of Richard. Overloaded with cares and sorrows, and robbed of his last domestic comfort, this unhappy father broke out into expressions of the utmost despair: he cursed the day of his birth; and bestowed on his undutiful and ungrateful children a malediction, which he could never be brought to retract. The more his heart was disposed to friendship and affection, the more he resented the barbarous return which his four sons had successively made to his parental care; and this fatal discovery, by depriving him of all that made life desirable, quite broke his spirit, and threw him into a lingering fever of which he soon after expired, in the 58th year of his age, at the castle of Chinon, near Saumur in Normandy.

The reign of Richard I. was chiefly employed in romantic projects, and furnishes but few events that are interesting to Englishmen Influenced more by ambition than zeal he drained the resources of the nation in preparing for a crusade against the Saracens and Turks, in which he spent more than three years. The exploits he performed in Scicily and Palestine, his quarrel with Philip of France, and his long imprisonment in Germany, are all foreign events, and will therefore be related in other parts of this work. Philip took advantage of his absence to excite his brother John to lay claim to the sovereign authority, and was extremely chagrined when the return of Richard caused his ambitious and perfidious policy to fail of its effects. A war now commenced between England and France, which produced nothing of importance, and was just ready to be succeeded by peace, when Richard was unfortunately slain by an arrow before an inconsiderable castle, which he besieged in hopes of taking from one of his vassals, a great mass of gold which had been found hid in the earth.

The reign of his successor John, commenced with the murder of his nephew Authur, the son of Geoffry, whom John is said to have stabbed with his own hand. The misfortunes of the English king immediately followed upon this crime. A war with the Bretons and an arraignment before the king of France were its immediate consequences. In the course of three years he was stripped of nearly all his continental dominions and found that his arrival in England completed his disgrace. He saw himself universally

despised by the barons, on account of his pusillanimity and baseness; and a quarrel with the clergy, drew upon him the contempt of that order and the indignation of Rome. The papal chair was then filled by Innocent III. who having been exalted to it at a more early period of life than usual, and being endowed with a lofty and enterprising genius, gave full scope to his ambition, and attempted, more openly than any of his predecessors, to convert that ghostly superiority, which was yielded him by all the European princes, into a real dominion over them; strongly inculcating that extravagant maxim, "That neither princes nor bishops, civil governors nor ecclesiastical rulers, have any lawful power, in church or state, but what they derive from the pope." To this pontiff an appeal was made relative to the appointment of an archbishop of Canterbury. Two primates had been elected; one by the monks or canons of Christ-church, Canterbury, and one by the suffragan bishops, who had the king's approbation. The pope declared both elections void, and commanded the monks, under penalty of excommunication, to chose for their primate cardinal Langton, an Englishman by birth, but educated in France, and connected by his interests and attachments with the see of Rome. The monks complied; and John inflamed with rage at such an usurpation of his prerogative, expelled them the convent; swearing by God's teeth, his usual oath, that, if the pope gave him any farther disturbance, he would banish all the bishops and clergy of England. Innocent, however, knew his weakness, and laid the kingdom under an interdict; at that time the grand instrument of vengeance and policy employed against sovereigns by the court of Rome.

The execution of this sentence was artfully calculated to strike the senses in the highest degree, and to operate with irresistible force on the superstitious minds of the people. The nation was suddenly deprived of all exterior exercise of its religion; the altars were despoiled of their ornaments; the crosses, the reliques, the images, the statutes of the saints were laid on the ground; and, as if the air itself had been profaned, and might pollute them by its contact, the priests carefully covered them up, even from their own approach and veneration. The use of bells entirely ceased in all the churches; the bells themselves were removed from the steeples, and laid on the ground with the other sacred utensils. Mass was celebrated with shut doors, and none but the priests were admitted to that holy institution. The laity partook of no religious rite, except baptism of new born infants, and the communion of the dying. The dead were not interred in consecrated ground: they were thrown into ditches, or buried in the common fields; and their obsequies were not attended with prayers, or any hallowed ceremony. The people were prohibited the use of meat, as in Lent, and debarred from all pleasures and amusements. Every thing wore the appearance of the deepest distress, and of the most immediate apprehensions of divine vengeance and indignation.

Innocent having thus made trial of his power, carried still farther his ecclesiastical vengeance against the king of England, who was now both despised and hated by his subjects of all ranks and conditions. He gave the bishops of London, Ely, and Worcester, authority to denounce against John the sentence of excommunication. His subjects were absolved from their oath of allegiance, and a sentence of deposition soon follow-

ed. But as this last sentence required an armed force to execute it, the Pontiff pitched on Philip, II. king of France, as the person into whose hand he could most properly entrust so terrible a weapon; and he proffered that monarch, besides the remission of all his sins, and endless spiritual benefits, the kingdom of England as the reward of his labour.

Preparations for hostilities were making both in England and France when John averted the storm by means more conformable to his character than manly resistance. He came disarmed into the presence of the legate Pandolfo, who had been employed to negociate with the courts of London and Paris, swore fealty to the pope and bound himself to pay him a yearly tribute of 700 marks for England, and 300 for Ireland.

Though John was thus delivered from ecclesiastical censure he was obliged to submit to his barons, and sign that celebrated charter, which is justly considered as the first great bulwark of british liberty. They had entered into a confederacy, laid waste the royal domains, and reduced the king to such an extremity that he held a conference with them at Runnemede, between Windsor and Staines, and there consented to comply with their requests. The most valuable stipulation in the charter, which was signed at Runnemede, was the following concession, "No man shall be apprehended or imprisoned, or disseised, or enslaved, or banished, or any other way destroyed; nor will we go upon him, nor will we send upon him, except by the legal judgment of his peers, or by the law of the land."

The stipulation next in importance seems to be the following, "to no man will we sell, to no man will we delay right and justice." The better to secure the execution of this charter, the barons stipulated with the king for the privilege of choosing 25 members of their own order, as conservators of the public liberties; and no bounds were set to the authority of those noblemen, either in extent or duration. If complaint was made of the violation of the charter, any four of the conservators might admonish the king to redress the grievance, and if satisfaction was not obtained, they could assemble the whole council of 25 This august body, in conjunction with the great council of the nation, was empowered to compel him to observe the charter; and in case of resistance, might levy war against him. All men throughout the kingdom were bound under penalty of confiscation, to swear obedience to the 25 barons; and the free-holders of each county were to chose 12 knights, who should make report of such evil customs as required redress, conformable to the tenor of the great charter.

The age which elapsed between the conquest and magna charta, was the most enlightened part of the long night of barbarism. The companions of bishop Becket, were many of them men of solid learning and good sense, possessing those qualities in such an eminent degree, as to render them instructive and entertaining even to modern readers. Unfortunately, however, they wrote only in latin, and therefore contributed nothing to the polishing the english tongue.

It is now necessary to conclude this chapter, by noticing the succession and domestic history of the Scottish kings.

Malcolm Canmore, who was cotemporary with William I. was the firm friend and

ally of Edgar Atheling. He employed the interval of peace which succeeded his war with the conqueror, in endeavouring to civilize his countrymen, by the introduction of French and English manners. His conduct in this instance, though highly patriotic and praise worthy, has been censured by some Scottish historians as encouraging luxury, and caused him much uneasiness in the time of his life. He was slain at the siege of Alnwick in 1093, but in what manner is variously related.

He was succeeded by the usurper Donald Bane, who found himself obliged to surrender the Northern isles to the Danes, and was nevertheless deposed by Edgar the son of his predecessor. Edgar, after reigning nine years in firm friendship with England, died in 1107, and was succeeded by his brother Alexander I. surnamed the fierce from the impetuosity of his temper. Alexander laboured hard to suppress the exorbitant power of the nobles, was very severe in the execution of justice, and faithfully served king Henry I. in his wars with the Welch. He was succeeded in 1124 by his younger brother David, who took part with the empress Maud, against Stephen, by whom he was defeated at the battle of the standard. Malcolm IV. surnamed the maiden, succeeded in 1153, he was a weak prince, and died in 1165. His brother William ungenerously encouraged the sons of Henry in rebellion against their father, was defeated by that king, and compelled him to do homage even for his Scottish dominions.

Richard I. released him from this homage, on the payment of 10,000 marks, and he continued a faithful ally of the English till his death, which happened in 1214.

GREAT BRITAIN, AND IRELAND—*From the signing of Magna Charta, to the accession of Henry IV.*

WHEN John consented to the stipulations of his barons, he only dissembled till he should find a favourable opportunity to revoke all his concessions, and in order to facilitate such an event, sent abroad emissaries to enlist foreign mercenaries, and procured a bull from the pope annulling the charter, absolving the king from his oath to observe it, and denouncing a general sentence of excommunication against every one who should persevere in maintaining such treasonable pretensions.

John now pulled off the mask: he recalled all that he had done; and as his foreign mercenaries arrived along with the bull, he expected nothing but universal submission. But our gallant ancestors were not so easily frightened out of their rights. Langton, the primate, though he owed his elevation to an encroachment of the court of Rome, refused to obey the pope in publishing the sentence of excommunication against the barons. Persons of all ranks, among the clergy as well as laity, seemed determined to maintain, at the expence of their lives, the privileges granted in the great charter. John had therefore nothing to rely on for re-establishing his tyranny, but the sword of his Brabancons: and that unfortunately, proved too strong if not for the liberties of England, at least for its prosperity. The barons, after obtaining the great charter, had sunk into a kind of fatal security; having not only dismissed their vassals, but taking no rational measures for re-assembling them in any emergency: so that the king found himself master of the field, without any adequate force to oppose him. Castles were defended, and skirmishes risked, but no regular opposition was made to the progress of the royal armies; while the ravenous mercenaries, incited by a cruel and incensed prince, were let loose against the houses and estates of the barons, and spread devastation over the whole face of the kingdom. Nothing was to be seen, from Dover to Berwick, but the flames of villages reduced to ashes, and the consternation and misery of the helpless inhabitants.

In this desperate extremity, the barons dreading the total loss of their liberties, their lives, and their possessions, had recource to a remedy no less desperate. They offered to acknowledge, as their sovereign, prince Lewis, eldest son of Philip Augustus, king of France, provided he would protect them from the fury of their enraged monarch. The temptation was too great to be resisted by a prince of Philip's ambition. He sent over instantly a small army to the relief of the barons, and afterwards a more numerous body of forces, with his son Lewis at their head, although the pope's legate threatened him with interdicts and excommunications, if he presumed to invade the dominions of a prince under the immediate protection of the Holy See. Assured of the fidelity of his subjects, these menaces were little regarded by Philip.

The French monarch, however, took care to preserve appearances in his violences, and only appearances. He pretended his son Lewis had accepted the offer from the English barons without his advice, and contrary to his inclinations; and that the ar-

mies sent into England were levied in that prince's name. But these artifices were not employed by Philip to deceive. He knew that the pope had too much penetration to be so easily imposed upon, and that they were too gross even to gull the people, but he knew, at the same time, that the manner of conducting any measure is of as much consequence as the measure itself, and that a violation of decency, in the eye of the world, is more criminal than a breach of justice.

Lewis no sooner landed in England, than John was deserted by his foreign troops, who, being principally French refused to serve against the heir of their monarch; so that the barons had the melancholy prospect of succeeding in their purpose, and of escaping the tyranny of their own king, by imposing on themselves and the nation a foreign yoke. But the imprudent partiality of Lewis to his countrymen, increased that jealousy, which it was so natural for the English to entertain, in their present situation, and did great hurt to his cause. Many of the dissatisfied barons returned to the king's party; and John was preparing to make a last effort for his crown, when death put an end to his troubles and his crimes, in the 49th year of his age, and the 18th of his reign. His character is nothing but a complication of vices, equally mean and odious; ruinous to himself, and destructive to his people. But a sally of wit upon the usual corpulency of the priests, more than all his enormities, made him pass with the clergy of that age, for an impious prince. "How plump and well fed is this animal!" exclaimed he, one day, when he had caught a very fat stag: "and yet I dare swear, he has never heard mass."

John was succeeded by his son Henry III. only nine years old at his father's death; and for once a minority proved of singular service to England. The earl of Pembroke, who, by his office of marschal, was at the head of the military power, and, consequently, in perilous times, at the head of the state, determined to support the authority of the infant prince. He was chosen protector; and, fortunately for the young monarch, and for the nation, the regency could not have been entrusted into more able or more faithful hands. In order to reconcile all classes of men to the government of his pupil, he made him renew and confirm the great charter. And he wrote letters in Henry's name to all the malcontent barons, representing that whatever animosity they might have harboured against the late king, they ought to retain none against his son, who had now succeeded to his throne, but neither to his resentments, nor to his principles, and was resolved to avoid the paths which had led to such dangerous extremities; exhorting them, at the same time, by a speedy return to their duty, to restore the independancy of the kingdom, and secure that liberty for which they had so zealously contended, and which was now confirmed to them by a second charter. These arguments, enforced by the character of Pembroke, had a mighty influence on the barons. Most of them secretly negotiated with him, and many of them openly returned to their duty. Lewis therefore, who had made a journey to France and brought over fresh succours with him from that kingdom, found his party much weakened on his return; and that the death of John, contrary to all expectation, had blasted his favourite designs. He laid siege however, to Dover, which was gallantly defended by Hubert de Burgh. In the mean

time, the French army, commanded by the count de Perche, was totally defeated by the earl of Pembroke, before the castle of Lincoln; and four hundred knights, with many persons of superior rank, were made prisoners by the English. Lewis, when informed of this fatal event, returned to London, which was the centre and life of his party. He there received intelligence of a new disaster, which extinguished all his hopes. A french fleet, with a strong reinforcement on board, had been repulsed on the coast of Kent, and obliged to take shelter in their own harbour.

The English barons, after this second advantage gained over the French, by the royal party, hastened from all quarters to make peace with the protector, and prevent, by an early submission, those attainders to which they were exposed on account of their rebellion; while Lewis, whose cause was now totally desperate, began to be anxious for the safety of his person, and was glad, on any tolerable condition, to make his escape from a country, where every thing was become hostile to him. He accordingly concluded a treaty with Pembroke, by which he promised to evacuate the kingdom; only stipulating in return, an indemnity to his adherents, a restitution of their honours and fortunes, and the free and equal enjoyment of those liberties, which had been granted to the rest of the nation. Thus, was happily terminated a civil war, which seemed to spring from the most incurable hatred and jealousy, and had threatened to make England a province of France.

The prudence and equity of the protector, after the expulsion of the french, contributed to cure entirely those wounds which had been made by intestine discord. He received the rebellious barons into favour; observed strictly the terms of peace which he had granted them; restored them to their possessions; and endeavoured, by an equal behaviour, to bury all past animosities in perpetual oblivion. But unfortunately for the kingdom, this great and good man did not long survive the pacification: and Henry, when he came of age, proved a weak and contemptible prince. England was again involved in civil broils, which it would be equally idle and impertinent to relate; as they were neither followed, during many years, by any event of importance to society, nor attended with any circumstances, which can throw light upon the human character. Their causes and consequences were alike insignificant. It is necessary, however, to observe, that the king having married Eleanor, daughter of the count of Provence, was surrounded by a multitude of strangers, from that and other countries, whom he caressed with the fondest affection, and enriched by an imprudent generosity. The insolence of these foreigners is said to have arisen to such a height, that when, on account of their outrages or oppressions, an appeal was made to the law, they scrupled not to say, "What do the laws of England signify to us? We mind them not." This open contempt of the English constitution, roused the resentment of the barons, and tended much to aggravate the general discontent arising from the preference shewn to strangers; as it made every act of violence, committed by a foreigner, appear not only an injury, but an insult. Yet no remonstrance or complaint could ever prevail on the king to abandon them, or even to moderate his attachment towards them. But Henry's profuse bounty to his foreign relations, and to their friends and favourites, would have appear-

ed more tolerable to the English, had any thing been done for the benefit of the nation; or had the king's enterprises in foreign countries been attended with any success or glory to himself or the public. Neither of these, however, was the case. As imprudence governed his policy, misfortune marked his measures. He declared war against France, and made an expedition into Guienne, upon the invitation of his father-in-law, who promised to join him with all his forces; but being worsted at Taillebourg, he was deserted by his allies, lost what remained to him of Poitou, and was obliged to return with disgrace into England. Want of œconomy, and an ill-judged liberality, were the great defects in Henry's domestic administration. These kept him always needy, and obliged him continually to harrass his barons for money, under different pretences. Their discontents were thereby increased, and he was still a beggar. Even before his foreign expedition, his debts had become so troublesome, that he sold all his plate and jewels, in order to discharge them. When this expedient was first proposed to him, he asked where he should find purchasers. "In the city of London," it was replied. "On my word," said he, "if the treasury of Augustus were brought to sale, the citizens are able to be the purchasers. These clowns, who assume to themselves the name of barons, abound in every thing, while we are reduced to necessities." And he was thence forth observed to be more greedy in his exactions upon the citizens.

Many however, as were the grievances that the English, during this reign, had reason to complain of in their civil government, they seem to have been still less burthensome than those which proceeded from spiritual usurpations and abuses; and which Henry, who relied on the pope for the support of his tottering authority, never failed to countenance. All the chief benefices of the kingdom were conferred on Italians, great numbers of whom were sent over to be provided for: and non-residence and pluralities were carried to so enormous a height, that Mansel, the king's chaplain, is computed to have held, at one time, 700 ecclesiastical livings. The pope exacted the revenues of all vacant benefices; the 20th of all ecclesiastical revenues, without exception; the third of such as exceeded 100 marks a year, and the half of such as were possessed by non-residents! He claimed also the goods of all intestate churchmen: he pretended a right to inherit all money got by usury, and he levied voluntary contributions on the people.

But the most oppressive expedient employed by the court of Rome, in order to drain money from England, was that of embarking Henry in a project for the conquest of Sicily. On the death of the emperor Frederic II. the succession of that island devolved to his son Conrad, and afterwards to his grandson Conradine, yet an infant; and as Mainfroy, the emperor's natural son, under pretence of governing the kingdom during the minority of the young prince, had formed a scheme for usurping the sovereignty, Innocent IV. had a good apology for exerting that superiority which the popes claimed over Sicily, and at the same time of gratifying his hatred against the house of Suabia. He accordingly attempted to make himself master of the kingdom; but being disappointed in all his enterprizes by the activity and artifices of Mainfroy, and finding that his own force was not sufficient for such a conquest, he made a tender of the crown

to Richard earl of Cornwall, brother to Henry III. and supposed to be the richest subject in Europe. Richard had the prudence to reject the dangerous present, but not the power to prevent the evil. The same offer being afterwards made to the king, in favour of his second son Edmond, that weak monarch was led by the levity and thoughtlessness of his disposition, to embrace the insidious proposal, and immense sums were drained from England, under pretence of carrying this project into execution; for the pope took that upon himself But the money was still found insufficient: the conquest of Sicily was as remote as ever Henry, therefore, sensible at length of the cheat, was obliged to resign into the pope's hands that crown which he had more than purchased; but which it was never intended either he or his family should inherit. The earl of Cornwall had now reason to value himself on his foresight, in refusing the fraudulent bargain with Rome, and in preferring the solid honours of an opulent and powerful prince of the blood in England, to the empty and precarious glory of a foreign dignity; but he had not always firmness sufficient to adhere to this resolution. His immense wealth made the German princes cast their eye on him as a candidate for the empire, after the death of William of Holland; and his vanity and ambition for once prevailed over his prudence and his avarice He went over to Germany, was tempted to expend vast sums on his election, and succeeded so far as to be chosen by a faction, and crowned at Aix-la-Chapelle; but having no personal or family connections in that country, he never could attain any solid power. He therefore found it necessary to return into England, after having lavished away the frugality of a whole life, in order to procure a splendid title England, in the mean while, was involved in new troubles. The weakness of Henry's government, and the absence of his brother, gave reins to the factious and turbulent spirit of the barons. They demanded an extension of their privileges, and if we may credit the historians of those times, had formed a plan of so many limitations on the royal authority, as would have reduced the king to a mere cypher. Henry would agree to nothing but a renewal of the great charter; which, at the desire of the barons, was ratified in the following manner. All the prelates and abbots were assembled, they held burning tapers in their hands, the great charter was read before them, they denounced the sentence of excommunication against every one who should violate that fundamental law; they threw their tapers on the ground, and exclaimed, "May the soul of every one, who incurs this sentence, so stink and corrupt in hell." The king also bore a part in the ceremony, and subjoined, "So help me God! I will keep all these articles inviolate, as I am a man, as I am a christain, as I am a knight, and as I am a king crowned and anointed." This tremendous ceremony, however, was no sooner over than the king forgot his engagements, and the barons renewed their pretensions. At the head of the malcontents was Simon de Mountfort, earl of Leicester, a man of great talents and boundless ambition, who had married Eleanor, the king's sister, and hoped to wrest the sceptre from the feeble and irresolute hand that held it. He represented to his associates the necessity of reforming the state, and of putting the execution of the laws into other hands than those which had hitherto been found, from repeated experience, unfit for that important charge. After so many submissions and

fruitless promises, the king's word, he said, could no longer be relied on, and his inability to violate national privileges could thenceforth only insure their preservation. These observations, which were founded in truth, and entirely conformable to the sentiments of those to whom they were addressed, had the desired effect. The barons resolved to take the administration into their own hands; and Henry having summoned a parliament at Oxford, found himself a prisoner in his national council, and was obliged to submit to the terms prescribed to him, called the provisions of Oxford. According to these provisions, twelve barons were selected from among the king's ministers; 12 more were chosen by the parliament; and to those 24 barons unlimited authority was granted to reform the state. Leicester was at the head of this legislative body, to which the supreme power was in reality transferred; and their first step seemed well calculated for the end which they professed to have in view. They ordered that four knights should be chosen by each county; that they should make enquiry into the grievances of which their neighbourhood had reason to complain, and should attend the ensuing parliament, in order to give information to that assembly, of the state of their particular counties. The earl of Leicester and his associates, however, having advanced so far as to satisfy the nation, instead of continuing in the same popular course, immediately provided for the extension and continuation of their own exorbitant authority, at the expence both of the king and the people. They enjoyed the supreme power near three years; and visibly employed it, not for the reformation of the state, their original pretence for assuming it, but for the aggrandisement of themselves and families. The breach of trust was evident to all the world: every order of men in England felt it, and murmured against it; and the pope, in order to gain the favour of the nation absolved the king and all his subjects, from the oath which they had taken to observe the provisions of Oxford.

As soon as Henry received the pope's absolution from his oath, with threats of excommunication against all his opponents, he resumed the government; offering, however, to maintain all the regulations made by the reforming barons, except those which intirely annihilated the royal authority. But these haughty chieftains could not peaceably resign that uncontrouled power which they had so long enjoyed. Many of them adopted Leicester's views, which held in prospect nothing less than the throne itself. The civil war was renewed in all its horrors; and after several fruitless negociations, the collected force of the two parties met near Lewes in Sussex, where the royal army was totally defeated, and the king and prince Edward made prisoners.

No sooner had Leicester obtained this victory, and got the royal family in his power, than he acted as [illegible] and even tyrant of the kingdom. He seized the estates of no less than [illegible] as his share of the spoil gained in the battle of Lewes: he engrossed to himself [illegible] of all the prisoners, and told his barons, with wanton insolence, that it was [illegible] for them that he had saved them, by that victory, from the forfeitures and [illegible] which hung over them. All the officers of the crown were named by him; the whole authority, as well as arms of the state, were lodged in his hands.

But it was impossible that things could remain long in this equivocal situation. It became necessary for Leicester either to descend to the rank of subject, or mount up to that of a sovereign: and he could do neither without peril. He summoned a new parliament; which for his own purposes, he fixed on a more democratical basis than any called since the Norman conquest, if not from the foundation of the monarchy. He ordered returns to be made not only of two knights from every shire, but also of deputies from the boroughs: and this introduced into the national council a second order of men, hitherto regarded as too mean to enjoy a place in those august assemblies, or to have any share in the government of the state. But although we are indebted to Leicester's usurpation for the first rude outline of the House of Commons, his policy only forwarded by some years an institution, for which the general state of society had already prepared the nation; and that house, though derived from so invidious an origin, when summoned by legal princes, soon proved one of the most useful members of the constitution, and gradually rescued the kingdom, as we shall have occasion to see, both from aristocratical and regal tyranny. It is but just, however, to observe, that as this necessary, and now powerful branch of our constitution owed its rise to usurpation, it is the only one of the three that has latterly given an usurper to the state. The person to whom I allude, is Oliver Cromwell; and I will be so bold as to affirm, that if ever England be again subjected to the absolute will of ONE man, unless from abroad, that man must be a member of the House of Commons. The people are alike jealous of the power of the king and the nobles; but they are themselves greedy of dominion, and can only possess it through their representatives. A popular member of the lower house, therefore, needs only ambition, enterprize, and a favourable conjuncture to overturn the throne; to strip the nobles of their dignities; and, while he blows the trumpet of liberty, to tell his equals they are slaves.

Leicester's motive for giving this form to the parliament, was a desire of crushing his rivals among the powerful barons; and trusting to the popularity acquired by such a measure, he made the earl of Derby be accused in the king's name, and ordered him to be seized and committed to prison without being brought to any legal trial. Several other barons were threatened with the same fate, and deserted the confederacy. The royalists flew to arms; prince Edward made his escape; and the joy of this young hero's appearance, together with the oppressions under which the nation laboured, soon produced him a force which Leicester was unable to resist. A battle was fought near Evesham, where Leicester was slain, and his army totally routed. When that nobleman, who possessed great military talents, observed the vast superiority in numbers and excellent disposition of the royalists, he exclaimed, "The Lord have mercy on our souls! for I see our bodies are prince Edward's: he has learned from me the art of war." Another particular deserves to be noticed. The old king, disguised in armour, having been purposely placed by the rebels in the front of the battle, had received a wound, and was ready to be put to death, when he weakly, but opportunely, cried out, "Spare my life! I am Henry of Winchester, your king." His brave son flew to his rescue, and put him in a place of safety. The victory of Evesham proved decisive in

favour of the royal party, but was used with moderation. Although the suppression of so extensive a rebellion commonly produces a revolution in government, and strengthens as well as enlarges the prerogatives of the crown, no sacrifices of national liberty were exacted upon this occasion. The clemency of this victory is also remarkable; no blood was shed upon the scaffold. The mild disposition of the king, and the prudence of the prince, tempered the insolence of power, and gradually restored order to the several members of the state. The affairs of England were no sooner settled than prince Edward, seduced by a thirst of glory, undertook an expedition into the Holy Land; where he signalized himself by many acts of valour, and struck such terror into the Saracens, that they employed an assassin to murder him. The ruffian wounded Edward in the arm, but paid for his temerity with his life. Mean while the prince's absence from England was productive of many pernicious consequences, which the old king, unequal to the burden of government, was little able to prevent. He therefore implored his gallant son to return, and assist him in swaying that sceptre, which was ready to drop from his feeble hands. Edward obeyed; but before his arrival the king expired, in the 64th year of his age, and the 56th of his reign, the longest in the English annals.

The most obvious feature in the character of Henry III. is his weakness. From this source, rather than from insincerity or treachery, arose his negligence in observing his promises; and hence for the sake of present conveniency, he was easily induced to sacrifice the lasting advantages arising from the trust and confidence of his people. A better head, with the same disposition, would have prevented him from falling into so many errors! but (every good has its allay!) with a worse heart, it would have enabled him to maintain them. Prince Edward had reached Sicily, in his return from the Holy Land, where he received intelligence of the death of his father, and immediately proceeded homeward. But a variety of objects claim attention, before I carry farther the transactions of our own island, which now become truly important. The reign of Edward I. forms a new æra in the history of Britain.

As soon as Edward returned to England, where his authority was firmly established, by his high character, both at home and abroad, he applied himself assiduously to the correcting of those disorders, which the civil commotions, and the loose administration of his father, had introduced into every part of government. His policy, though severe, was equally liberal and prudent. By an exact distribution of justice, and a rigid execution of the laws, he gave at once protection to the inferior orders of the state, and diminished the arbitrary power of the nobles. He made it a rule in his own conduct to observe, except upon extraordinary occasions, the privileges secured to the barons by the great charter, and he insisted on their observance of the same charter towards their vassals; he made the crown be regarded as the grand fountain of justice, and the general asylum against violence and oppression. By these wise measures, the state of the kingdom was soon wholly changed; order and tranquility were restored to society, and vigour to government.

Now it was, that the enterprising spirit of Edward began more remarkably to shew

itself. He undertook an expedition against Lewellyn, prince of Wales, who had formerly joined the rebellious barons, and whose two brothers, David and Roderic, had fled to Edward for protection, craving his assistance to recover their possessions, and seconding his attempts to enslave their native country. The Welch prince had no resource against the superior force of Edward but the inaccessible situation of his mountains, which had hitherto protected his forefathers against all the attempts of the Saxon and Norman conquerors He accordingly retired with the bravest of his subjects among the hills of Snowdon. But Edward, no less vigorous than cautious, pierced into the heart of the country, and approached the Welch army in its last retreat Having carefully secured every pass behind him, he avoided putting to trial the valour of a nation proud of its antient independency. He trusted to the more slow but sure effects of famine for success: and Lewellyn was at length obliged to submit, and receive the terms imposed upon him by the English monarch. These terms, though sufficiently severe, were but ill observed by the victors. The English oppressed and insulted the inhabitants of the districts which were yielded to them. The indignation of the Welch was roused: they flew to arms; and Edward again entered Wales with an army, not displeased with the occasion of making his conquest final. This army he committed to the command of Roger Mortimor, while he himself waited the event in the castle of Rudhlan; and Lewellyn, having ventured to leave his fortresses, was defeated by Mortimor, and slain, together with 2,000 of his followers. All the Welch nobility submitted to Edward, and the laws of England were established in that principality. In order to preserve his conquest, Edward had recourse to a barbarous policy. He ordered David, brother to Lewellyn, and his successor in the principality of Wales, to be hanged, drawn, and quartered, as a traitor, for taking arms in defence of his native country, which he had once unhappily deserted, and for maintaining by force his own hereditary authority. He also ordered all the Welch bards to be collected together and put to death; from a belief, and no absurd one, that he should more easily subdue the independent spirit of the people, when their minds ceased to be roused by the ideas of military valour and antient glory, preserved in the traditional poems of these minstrels, and recited or sung by them on all public occasions and days of festivity.

It is now necessary to attend to the affairs of Scotland. William II. who died in the year 1214 was succeeded by his son Alexander II. a youth of 16. He carried on a very cruel war with John, in consequence of pretensions to the Northern English counties. He was the faithful ally of Lewis, as long as that prince was able to maintain his ground in England. In the year 1221 he espoused the princess Margery of England, and remained, during her life, on good terms with her father Henry III. After the death of the queen, a coolness commenced between the two courts which did not, however, produce hostilities on either side. His son and successor Alexander III. ascended the throne in 1249. The next year he married the daughter of Henry, who thought this a proper opportunity to cause him to do homage for all Scotland; but was disappointed in his ambitious designs through the good sense and firmness of the young prince. He was, together with his queen, imprisoned in the castle of Edinburgh, by the turbulent

family of the Cummins, who had at this time obtained the real command of Scotland. Being delivered from this bondage by his father-in-law, he at length triumphed over all opposition, was restored to the exercise of royal authority, which he employed with great wisdom and moderation, suppressing internal commotions, enlarging his dominions by procuring from Magnus, king of Norway, the cession of the Northern isles, and remained the peaceable neighbour and faithful ally of the English, till he was killed, in the year 1285, by his horse rushing down the black rock, near Kinghorn where he was hunting.

As Alexander left no male issue, nor any descendant except Margaret of Norway, his grand-daughter, who did not long survive him, the right of succession belonged to the descendants of David, earl of Huntington, third son of king David I. Of that line two illustrious competitors for the crown appeared; Robert Bruce, son of Isabel, earl David's second daughter, and John Baliol, grandson of Margaret, the eldest daughter. Each claim was supported by a powerful faction, and as the dispute was esteemed equally weighty and intricate, the Scottish parliament, or at least the English party, resolved to refer the decision to Edward I. The English monarch, upon pretence of examining the question with the utmost solemnity, summoned all the Scottish barons to attend him to the castle of Norham, a place situate on the southern bank of the Tweed, and having gained some, and intimidated others, he prevailed on all that were present, not excepting Bruce and Baliol, the two principal competitors for the succession, to acknowledge Scotland a fief of the English crown, and to swear fealty to him as their sovereign lord; he then demanded and received possession of the disputed kingdom, that he might be able to deliver it to him whose right should be found preferable. He soon after gave judgment in favour of Baliol, who was not only the least formidable, but possessed the best claim, according to the modern ideas of the right of inheritance. Baliol renewed the oath of fealty to England, and was put in possession of the kingdom. Thus far Edward seemed to have preserved some appearance of justice, but the subsequent part of his conduct toward Scotland will not admit of any vindication.

Having thus established his unjust pretensions to the feudal superiority of Scotland, he next aspired to the absolute sovereignty of that country: he attempted to provoke Baliol by indignities, to rouse him to rebellion, and to rob him of his crown. Baliol, unable to bear these oppressions, entered into a league with France, that he might the better maintain his independency.

Edward was obliged to have frequent recourse to parliamentary supplies, in order to enable him to reduce Scotland by arms, and in the 23d year of his reign, issued writs to the sheriffs, enjoining them to send to parliament two knights of the shire, and two deputies for each borough within their county, provided with sufficient powers from their community, to consent to what levies were necessary for the support of government.

Edward employed the supplies granted by his people in warlike preparations against his northern neighbours: he cited Baliol, as his vassal, to appear in an English parliament, to be held at Newcastle. But that prince, having now received pope Celestine's dispensation from his oath of fealty, renounced the homage which had been done to

England and set Edward at defiance. This bravado was but ill supported by the military operations of the Scots. Edward crossed the Tweed without opposition, at the head of 30,000 foot, and 4000 horse. Berwick was taken by assault; the Scottish army was totally routed near Dunbar; the whole southern part of the kingdom was subdued; and the timid Baliol, discontented with his own subjects, and overawed by the English, instead of making use of these resources which were yet left, hastened to make his submissions to the conqueror: he expressed the deepest penitence for his disloyalty to his liege lord; and he made a solemn and irrevocable renunciation of his crown into the hands of Edward. The English monarch marched as far north as Aberdeen and Elgin, without meeting a single enemy. No Scotsman approached him, but to pay him submission and do him homage. Even the turbulent Highlanders, ever refractory to their own princes, and averse against the restraints of law, endeavoured by a timely obedience to prevent the devastation of their country; and Edward, flattering himself that he had now obtained the great object of his wishes, in the final reduction of Scotland, left earl Warrenne governor of the kingdom, and returned with his victorious army into England.

Here a few particulars are necessary. There was a stone, to which the popular superstition of the Scots paid the highest veneration. All their kings were seated on it when they received the right of inauguration. Antient tradition assured them, that their nation should always govern where this stone was placed; and it was carefully preserved at Scone, as the true palladium of their monarch, and their ultimate resource under all misfortunes. Edward got possession of it, and carried it with him into England.

He also gave orders to destroy all the records, and all those monuments of antiquity which might preserve the memory of the independency of the kingdom of Scotland, and refute the English claims of superiority. The great seal of Baliol was broken, and that prince himself was carried prisoner to London, and committed to close custody in the tower. Two years after he was restored to liberty, and submitted to a voluntary banishment in France; where, without making any farther attempt for the recovery of his royalty, he died in a private station.

In the mean time England had been robbed of Guinne by the French king, who employed an artifice similar to that which Edward had practised against the Scots. The king of England having made several unsuccessful efforts to recove. the province, entered into an alliance with the earls of Holland and Flanders, and hoped that when he should enter France at the head of his English, Dutch, and Flemish armies, Philip would purchase peace by the restitution of Guinne.

But in order to set this vast machine in motion, considerable supplies were necessary from parliament; and these Edward readily obtained both from the lords and commons. He was not so fortunate in his imposition on the clergy, whom he always hated, and from whom he demanded a fifth of all their moveables, as a punishment for their adherence to the Mountford faction. They urged the pope's bull in opposition to all such demands; and Edward, instead of applying to Boniface VIII. then pontiff, for a re-

laxation of his mandate, boldly told the ecclesiastics, that since they refused to support the civil government, they were unworthy to receive any benefit from it, and he accordingly put them out of the protection of the laws.

But, though by this method he brought them to submission, these supplies were not sufficient for the king's necessities. He was obliged to exert his arbitrary power, and lay an oppressive hand on every order of men in the kingdom. The people murmured, and the barons mutinied, notwithstanding their great personal regard to Edward. He was obliged to make concessions; to promise all his subjects a compensation for the losses they had sustained, and to confirm the great charter, with an additional clause, in order to secure the nation for ever against all imposition and taxes without consent of parliament. These concessions our ancestors had the honour of extorting, by their boldness and perseverance, from the ablest, the most warlike, and the most ambitious monarch that ever sat upon the throne of England. The validity of the great charter was never afterwards formally disputed.

Earl Warrenne having returned to England, on account of his ill state of health, had left the administration of Scotland entirely in the hands of Ormsby and Cressingham the officers next in rank, who, instead of acting with that prudence and moderation necessary to reconcile the Scottish nation to a yoke which they bore with such extreme reluctance, exasperated every man of spirit by the rigour and severity of their government.

Among these William Wallace whose heroic exploits are worthy of just panegyric, but to whom the fond admiration of the Scots has ascribed many fabulous acts of prowess, undertook and accomplished the desperate project of delivering his native country from the dominion of foreigners. He had been provoked by the insolence of an English officer to put him to death, and finding himself on that account obnoxious to the conquerors, he fled into the woods, and offered himself as a leader to all whom the oppressions of the English governors had reduced to the like necessity. He was of a gigantic stature, and endowed with wonderful strength of body; with invincible fortitude of mind; with disinterested magnanimity; with incredible patience, and ability to bear hunger, fatigue, and all the severities of the seasons; so that he soon acquired among his desperate associates, that authority to which his virtues so eminently entitled him. Every day brought accounts of his gallant actions, which were received with no less favour by his countrymen than terror by the enemy. All men who thirsted after military fame were desirous to partake of his renown; his successful valour seemed to vindicate the nation from the ignominy under which it had fallen by its tame submission to the English; and although no nobleman of note ventured yet to join the party of Wallace, he had gained a general confidence and attachment, which birth and fortune alone were not able to confer.

So many fortunate enterprises brought the valour of the Scottish chieftain's followers to correspond with his own: and he determined to strike a decisive blow against the English government. Ormsby, apprised of this intention, fled hastily into England; and all the other officers of his nation imitated his example. Their terror added courage to the Scots, who betook themselves to arms in every quarter. Many of the principal barons

openly countenanced Wallace's party: and the nation, shaking off its fetters, prepared to defend, by one united effort, that liberty which it had so unexpectedly recovered from the hands of its oppressors.

Mean while Warrenne, having collected an army of 40,000 men in the North of England, in order to re-establish his authority, suddenly entered Annandale, before the Scots had united their forces, or put themselves in a posture of defence; and many of the nobles, alarmed at the danger of their situation, renewed their oaths of fealty, and received a pardon for past offences. But Wallace, still undaunted, continued obstinate in his purpose. As he found himself unable to give battle to the enemy, he marched northwards, with an intention of prolonging the war, and of turning to his advantage the situation of that mountainous and barren country. Warrenne attacked him in his camp near Stirling, on the banks of the Forth, where the English army was totally routed. Cressingham, whose impatience urged this attack, was slain; Warrenne was obliged to retire into England, and the principal fortresses in Scotland surrendered to the conqueror.

Wallace was now universally revered as the deliverer of his country, and received from his followers the title of regent or guardian of the kingdom, a dignity which he well deserved. Not satisfied with expelling the enemy, he urged his army to march into England, and revenge all past injuries, by retaliating on that hostile nation. The Scots, who deemed every thing possible with such a leader, joyfully attended his call. They broke into the northern counties during the winter season, laying every thing waste before them; and after extending their ravages on all sides, as far as the bishopric of Durham, returned into their own country loaded with spoils, and crowned with glory, under the victorious Wallace.

Edward was in Flanders, when he received intelligence of these events; and having already concluded a peace with France, he hastened over to England, in assured hopes, not only of wiping off every disgrace, but of recovering the important conquest of Scotland, which he had always considered as the chief glory of his reign. With this view, he collected the whole military force of England, Wales, and Ireland; and with an army of 100,000 combatants, entered the devoted kingdom.

Scotland was never at any time able to withstand such a force. At present it was without a head, and torn by intestine jealousies. The elevation of Wallace was the object of envy to the nobles, who repined to see a private man raised above them by his rank, and still more by his reputation. Sensible of these evils, Wallace resigned his authority; and the chief command devolved upon men more eminent by birth, though less distinguished by abilities, but under whom the nobles were more willing to serve in the defence of their country. They fixed their station at Falkirk, were Edward came up with them, and the whole Scottish army was broken and chased off the field with great slaughter.

The subjection of Scotland however was not yet accomplished. The English army, after reducing all the southern provinces, was obliged to retire for want of provisions: and the Scots, no less enraged at their present defeat than elevated by their past victories, still maintained the contest for liberty. They were again victorious, and again sub-

dued. Wallace alone maintained his independency, amidst the universal slavery of his countrymen. But he was at length betrayed to the English by his friend, sir John Monteith: and Edward, whose natural bravery and magnanimity should have led him to respect like qualities in an enemy, ordered this illustrious patriot to be carried in chains to London; to be tried as a rebel and traitor, though he had never made submission or sworn fealty to England, and to be executed on tower-hill. He could not think his favourite conquest secure whilst Wallace was alive. Hence the unworthy fate of a man, who had defended for many years, with signal valour and perseverance, the liberties of his native country.

But the barbarous policy of Edward failed of the purpose to which it was directed. The cruelty and injustice exercised upon Wallace, instead of breaking the spirit, only roused more effectually the resentment of the Scots. All the envy, which, during his lifetime, had attended that gallant chieftain, being now buried in his grave, he was universally regarded as the champion of Scotland, and equally lamented by all ranks of men. The people were every where disposed to rise against the English government: and a new and more fortunate leader soon presented himself, who conducted them to liberty, to victory, and to vengeance.

Robert Bruce, son of that Robert, who had been one of the competitors for the crown of Scotland, had succeeded, in consequence of his father's death, to all his pretensions; and the death of John Baliol, which happened about the same time in France, seemed to open a full career to the genius and ambition of this young nobleman. He had formerly served in the English army; but it is said by some historians, that in a private conference held with Wallace, after the battle of Falkirk, the flame of patriotism was suddenly conveyed from the breast of one hero to that of another. Bruce regretted his engagement with Edward, and secretly determined to seize the first opportunity of rescuing from slavery his oppressed country. The time of deliverance seemed now come. He hoped that the Scots, without a leader, and without a king, would unanimously repair to his standard, and seat him on the vacant throne. Inflamed with the ardour of youth, and buoyed up by native courage, his aspiring spirit saw alone the glory of the enterprise, or regarded the difficulties that must attend it, as the source only of greater glory. The miseries and oppressions which he had beheld his countrymen suffer in their unequal contest for independency; the repeated defeats and misfortunes which they had undergone in the struggle, proved but so many incentives to bring them relief, and to lead them, boiling with revenge, against the haughty victors.

In consequence of this resolution, and some suspicions that Edward was apprised of it, Bruce suddenly left the English court, and arrived in a few days at Dumfries in Annandale, the chief seat of his family interest. There a number of the nobility were happily assembled, and among the rest John Cummin, to whom he had formerly communicated his designs, and who had basely revealed them to Edward. The noblemen were astonished at the appearance of Bruce, and yet more when he told them, that he was come to live or die with them in defence of the liberties of his country; and hoped with their assistance, to redeem the Scottish name from all indignities which it had so

long sufferer from the tyranny of their imperious masters. It were better, he said, if heaven should so decree it, to perish at once like brave men, with swords in their hands, than to dread long, and at last undergo the fate of the unfortunate Wallace. The spirit with which this discourse was delivered, the bold sentiments which it conveyed, the novelty of Bruce's declaration, assisted by the graces of his youth and manly deportment, made deep impression on the minds of the nobles, and roused all those principles of indignation and revenge, with which they had long been secretly actuated. They declared their unanimous resolution to use the utmost efforts in delivering their country from bondage, and to second the courage of Bruce in asserting his and their undoubted rights against their common oppressors. Cummin alone, who had privately taken his measures with Edward, opposed the general determination, by representing the great power of the English nation; and Bruce, already informed of his treachery, followed him out of the assembly, and running him through the body, left him for dead. Sir Thomas Kirkpatrick, one of Bruce's friends, asked him on his return, if the traitor was slain. "I believe so," replied Bruce. "And is that a matter," cried Kirkpatrick, "to be left to conjecture? I will secure him." He accordingly drew his dagger, ran to Cummin, and stabbed him to the heart.

The murder of Cummin affixed the seal to the conspiracy of the Scottish nobles. They had now no resource left, but to shake off the yoke of England, or perish in the attempt. The genius of the nation roused itself from its long dejection; and Bruce, flying to different quarters, excited his partizans every where to arms. He successfully attacked the dispersed bodies of the English; got possession of many castles; and having made his authority be acknowledged in most parts of the kingdom, was solemnly crowned at Scone, by the bishop of St. Andrew's who had zealously embraced his cause. The English were again driven out of the kingdom, except such as took shelter in the fortresses still in their hands; and Edward found that the Scots, already twice conquered by his valour, were yet to subdue.

Conscious, however, of his superior power, as well as superior skill in arms, this great monarch made light of his antagonist. He thought of nothing but victory and vengeance. He sent a body of troops into Scotland, under Aymar de Valence, his general; who falling unexpectedly upon Bruce, threw his army into disorder, and obliged him to take shelter in the Western Isles. Edward himself was advancing with a mighty force, determined to make the now defenceless Scots the victims of his severity, when he unexpectedly sickened and died at Carlisle; enjoining with his latest breath his son and successor to prosecute the war, and never to desist till he had finally subdued the kingdom of Scotland. But that, as we shall have occasion to see, the second Edward was little able to accomplish.

The character of Edward I. as a warrior and politician, has already been sufficiently delineated. We shall therefore forbear touching again on those particulars, and conclude this account of his reign with his merit as a legislator, which has justly obtained him the honourable appellation of the English Justinian. The numerous statutes passed during his reign settle the chief points of jurisprudence; and, as sir Edward Coke observes, truly deserve the name of establishments, because they have been more constant,

standing, and durable laws, than any made since. The regular order maintained in his administrations also gave the common law an opportunity to refine itself, brought the judges to a certainty in their determinations, and the lawyers to precision in their pleadings.

He regulated the jurisdiction of the several courts; established the office of justice of peace, completed the division of the court of exchequer into four distinct courts, each of which managed its separate branch, without dependence upon any one magistrate; and as the lawyers afterwards invented a method of carrying business from one court to another, the several courts became rivals and checks on each other; a circumstance which tended very much to improve the practice of the law in this country. But although Edward took so much care that his subjects should do justice to each other, we cannot ascribe it to his love of equity, for in all his transactions either with them or with his neighbours, he always desired to have his own hands free, and his violences upon both were not few.

No prince ever ascended the English throne with more advantages than Edward II. He was in the 23d year of his age, and universally beloved by the people, both on account of the sweetness of his own disposition, and as the son and successor of their illustrious monarch. He was at the head of a great army, ready to subject the whole island to his sway; and all men promised themselves tranquillity and happiness under his government.

But the first act of his reign blasted all these hopes, and shewed him totally unqualified for his high station. Instead of prosecuting the conquest of Scotland, according to the desire of his father, he returned into England, after a few feeble efforts, and immediately disbanded his forces; although Robert Bruce had before this time emerged from his obscurity, and was become sufficiently formidable to make more vigorous measures necessary.

The next step taken by Edward was no less weak and imprudent. He recalled Piers Gaveston, a youthful favourite, whom the late king had banished the realm on account of his ascendancy over this prince; and whom, on his death-bed, he had made him promise never more to entertain. Gaveston was the son of a Gascon knight of some distinction, and by his shining accomplishments had early insinuated himself into the affections of young Edward, whose heart was easily caught by appearances, and strongly disposed to friendship and confidence. He was endowed with the utmost elegance of shape and person; was noted for a fine mien and easy carriage; had distinguished himself in all warlike and genteel exercises, and was celebrated for those quick sallies of wit in which his countrymen usually excel. Little wonder that such a person was thought necessary to a gay monarch, whose foibles he was able to flatter: but a wise king will have no public favourite, and still less a foreign one. Edward experienced this danger.

Gaveston no sooner arrived at court than he was loaded with benefits, and exalted to the highest honours. The king bestowed upon him the earldom of Cornwall, which had escheated to the crown, by the death of prince Edmund, son of Richard, king of the Romans. He married him to his own niece, and seemed to enjoy no pleasure in

his royalty, but as it served to add lustre to this object of his fond idolatry. The haughty barons, already justly dissatisfied with Edward's conduct in regard to Scotland, were enraged at the superiority of a minion whom they despised. Nor did they take any care to conceal their animosity. Mean while Gaveston, instead of disarming envy by the moderation and modesty of his behaviour, displayed his power and influence with the utmost ostentation. Every day multiplied his enemies; and nothing was wanting but time to cement their union, and render it fatal both to him and his master.

The union was at length effected by Thomas earl of Lancaster, cousin-german to the king, and first prince of the blood. He put himself at the head of that party among the barons, who desired the depression of this insolent stranger. The confederated nobles bound themselves by oath to expel Gaveston: they took arms for that purpose, and Edward was obliged to banish him. But he was afterwards recalled, reinstated in his former consequence, and became more than ever the object of general detestation among the nobility, on account of his ostentation and insolence. A new confederacy was formed against him: he was again banished, and again recalled by the fond deluded monarch. An universal revolt took place: Edward and his favourite were hunted from corner to corner; and Gaveston at last fell by the hands of the public executioner.

After the death of Gaveston, the king's person became less obnoxious to the people. The discontents of all men seemed to be much appeased; the animosities of faction no longer prevailed; and England, it was hoped, would now be able to take vengeance on all her enemies, but especially on the Scots, whose progress was become the object of general resentment and indignation.

Soon after Edward's retreat from Scotland, Robert Bruce made himself master of the whole kingdom, except a few fortresses. He daily reconciled the minds of the nobility to his dominion; he enlisted under his standard every bold spirit, and he enriched his followers with the spoils of the enemy. Sir James Douglas, in whom commenced the greatness and renown of that warlike family, seconded Robert in all his enterprises. Edward Bruce, the king's brother, also distinguished himself by his valour; and as the dread of the English power being now abated by the feeble conduct of Edward, even the least sanguine of the Scots began to entertain hopes of recovering their independency. They obtained a truce, which was of short duration, and ill observed on both sides. But short as it was, it served to consolidate the power of the king, and introduce order into the civil government. War was renewed with greater fury than ever. Not content with defending himself, Robert made successful inroads into England; subsisted his needy followers by the plunder of the country, and taught them to despise the military genius of a people, who had long been the object of their terror.

Edward, at length roused from his lethargy, had marched an army into Scotland; and Robert, determined not to risk too much against a superior force, had again retired to his mountains. The English monarch advanced beyond Edinburgh; but being destitute of provisions, and ill supported by his nobility, he was obliged to return home, without gaining any advantage over the enemy. The seeming union, however, of all parties in England, after the death of Gaveston, opened again the prospect of reducing

Scotland, and promised a happy conclusion to a war, in which both the interests and the passions of the nation were so deeply engaged.

Edward assembled forces from all quarters, with a view of finishing at one blow this important enterprise. He summoned the most warlike of his vassals from Gascony; he enlisted troops from Flanders, and other foreign countries; he invited over great numbers of the disorderly Irish, as to a certain prey; he joined to them a body of Welch, who were actuated by like motives; he collected the whole military force of England, and entered Scotland at the head of an army of near 100,000 men. The Scottish army did not exceed 30,000 combatants, but being composed of men who had distinguished themselves by many acts of valour, who were rendered desperate by their situation, and who were inured to all the varieties of fortune, they might justly, under such a leader as Bruce, be esteemed equal to a far more numerous body. Robert, however, left as little as possible to the superior gallantry of his troops. He posted himself strongly at Bannockburn, about two miles from Stirling; the only fortress in Scotland that remained in the hands of the English, and which was on the point of surrendering. He had a rivulet in front, a hill on his right flank, and a morass on his left. In this situation he waited the approach of Edward. The English army arrived in sight towards evening, and a smart combat immediately commenced between two bodies of cavalry. Robert, who was at the head of the Scots, engaged in a single combat with Henry de Bohun, a gentleman of the family of Hereford, and at one stroke cleft his antagonist to the chin with a battle-axe, in sight of the two armies. The English horse fled with precipitation to their main body, and night prevented any farther hostilities.

Mean while the Scots, encouraged by this favourable event, and glorying in the prowess of their prince, prognosticated a happy issue to the contest of the ensuing day; and the English, confident in their numbers, and elated by past successes, longed for an opportunity of revenge The darkness, though but of a few hours, was borne with impatience, and Edward, as soon as light appeared, drew up his forces, and advanced against the Scots. Both armies engaged with great ardour, and the dispute was fierce and bloody. Sir James Douglas had broken the English cavalry; but their line of infantry was still firm, when a stratagem decided the fortune of the field. Bruce had collected a number of waggoners and sumpter boys, and furnished them with standards. They appeared upon the heights towards the left. The English mistook them for a fresh army coming to surround them; a panic seized them; they threw down their arms and fled. The Scots pursued with great slaughter as far as Berwick; and besides an inestimable booty, took many persons of quality prisoners, with above 400 gentlemen, whom Robert treated with great humanity, and whose ransom was a new accession of wealth to the victorious army. Edward himself very narrowly escaped, by taking shelter in Dunbar, whence he passed by sea to Berwick. Such was the great and decisive battle of Bannockburn, which secured the independency of Scotland, fixed Bruce on the throne of that kingdom, and may be deemed the most signal blow that the English monarchy had received since the Norman invasion. The number of slain is not certainly known, but it must have been very great; for the impression of this defeat in

the minds of the English was so strong, that no superiority of force could encourage them to keep the field against the Scots for some years.

In order to avail himself of his present successes, Robert entered England; ravaged all the northern counties without opposition; and, elated by his continued prosperity, now entertained hopes of making the most important conquests at the expence of the English. He sent over his brother Edward with an army of 6000 men into Ireland, and he himself followed soon after with a more numerous body of troops. But a grievous famine, which at that time desolated both Britain and Ireland, reduced the Scottish army to the greatest extremity; so that Robert was obliged to return with his forces much diminished, into his own country. His brother, who assumed the title of king of Ireland, after experiencing a variety of hardships, was defeated and slain by the English near Dundalk; and Robert became sensible that he had attempted projects too extensive for the force of his narrow kingdom.

England was not yet in a state of domestic tranquillity. The king's principal favourite after the death of Gaveston was Hugh le Despencer, or Spenser, a young man of English birth and noble family, possessed of many exterior accomplishments, but destitute of that moderation and prudence which was necessary to avoid the envy of the great.

Lancaster and his adherents regarded him as their rival, and formed plans for the destruction of him and his father. They betook themselves to their arms, entered London with their troops, and giving into the parliament an accusation against the Spensers, who were both of them absent, they procured, by menaces and violences, a sentence of perpetual exile against these ministers. Edward conceded to every thing that was demanded, till his forces were in the field, and then pulled off the mask. Lancaster was condemned by a court martial, and led to execution. About 20 more of the conspirators were executed, many were imprisoned, others escaped beyond sea. The forfeitures were generally seized by young Spenser, whose rapacity in this instance exposed him to universal hatred. In such a situation no success could be expected from foreign wars.

Edward, therefore, after making one more fruitless attempt against Scotland, whence he retreated with dishonour, found it necessary to terminate hostilities with that kingdom, by a truce of 13 years. This truce was so much the more seasonable for England, as the nation was at that time threatened with hostilities from France. Charles the Fair had some grounds of complaint against the English ministers in Guienne, and seemed desirous to take advantage of Edward's weakness, in order to confiscate all his foreign dominions.

After an embassy by the earl of Kent, the king's brother, had been tried in vain, queen Isabella obtained permission to go over to Paris, and endeavoured to adjust matters with her brother. She there found a number of English fugitives, the remains of the Lancastrian faction; and their common hatred to young Spenser soon begat a secret friendship and correspondence between them and that princess, who envied the favourite his influence with the king. Among these refugees was Roger Mortimer, a potent baron in the Welch marches, who had been condemned for high treason, but had made his

escape from the tower. His consequence introduced him to Isabella, and the graces of his person and address advanced him quickly in her affections. He became her confidant and counsellor in all her measures: and gaining ground daily upon her heart, he engaged her to sacrifice at last to her passion, all the sentiments of honour and fidelity to her husband. Hating now the man she had injured, and whom she never loved, she entered ardently into all Mortimer's conspiracies; and having artfully got into her hands the young prince, and heir of the monarchy, she resolved on the utter ruin of the king as well as of his favourite. She engaged her brother to take part in the same criminal purpose: her court was daily filled with exiled barons: Mortimer lived in the most declared intimacy with her, and a correspondence was secretly carried on with the malcontent party in England.

When Edward was informed of these alarming circumstances, he required the queen speedily to return with the prince. But Isabella publicly replied, that she would never set foot in the kingdom, until Hugh Spenser was for ever removed from his presence and councils. This declaration procured her great popularity in England, and drew a decent veil over all her treasonable enterprises. She no sooner arrived with her son in England than the king was entirely deserted. He fled to Wales. The elder Spenser, now earl of Winchester, and governor of the castle of Bristol, was delivered by the garrison into the hands of his enemies; and being instantly condemned, without any trial, witness, or accusation, to suffer death, he was hanged on a gibbet in his armour. His unhappy, but more criminal son, soon after shared the same fate: and the king, disappointed in his expectations of succour from the Welch, was seized among the mountains, where he had endeavoured to conceal himself, and confined in Kenilworth castle. Mean while the queen, taking advantage of the prevailing delusion, summoned in Edward's name a parliament at Westminster; where the king was accused of incapacity for government, and by the authority of her partizans deposed. The prince, a youth of 14 years of age, was placed on the throne, and the queen was appointed regent during his minority.

The earl of Lancaster, formerly earl of Leicester, to whose custody the dethroned monarch had been committed, was soon touched with sentiments of compassion and generosity towards his sovereign; and beside using him with gentleness and humanity, he was supposed to have entertained more honourable intentions in his favour. The king was therefore taken out of his hands, and delivered over to lord Berkeley, Montravers, and Gournay, who were entrusted each for a month with the charge of guarding him. While in the custody of Berkeley, Edward was still treated with gentleness and respect due to his rank and his misfortunes; but when the turn of Montravers and Gournay came, every species of indignity was offered him, as if their intention had been to break entirely the unhappy prince's spirit, and to employ his sorrows and afflictions, instead of more violent means, as the instruments of his murder. That method of laying Edward in his grave, however, appearing too slow to the impatient Mortimer, he sent orders to Gournay and Montravers to dispatch the king secretly; and these ruffians contrived to make the manner of his death as cruel as possible. Taking advantage of the indisposition of Berkeley, in whose custody he then was, but who was incapacitated

by sickness from attending his charge, they came to Berkeley castle, and put themselves in possession of the king's person. They threw him on a bed, held him down violently with a table, which they flung over him, and thrust into his fundament a horn, through which they burnt his bowels with a red hot iron. But although outward marks of violence were prevented by this expedient, the atrocious deed was discovered to all the guards and attendants, by the screams of the agonizing king.

Mortimer, the queen's gallant, very soon became the object of public odium. The hatred of the nation daily increased both against him and queen Isabella. Conscious of this, they subjected to their vengeance whomsoever they feared, in order to secure their usurped power. The earl of Kent, the young king's uncle, was iniquitously condemned and executed; the earl of Lancaster, Kent's brother, was thrown into prison; and many of the prelates and nobility were prosecuted under different pretences. These abuses could not long escape the observation of a prince of so much discernment as young Edward, nor fail to rouse his active spirit against the murder of his father, and the dishonour of his mother. But he was besieged in such a manner by the creatures of Mortimer, that it became necessary to conduct the project of bringing that felon to justice, with as much secrecy and caution as if he had been forming a conspiracy against his sovereign.

He communicated his intentions, however, to some of the nobility, who readily entered into his views; and they surprised the usurper in the castle of Nottingham, and dragged him from an apartment adjoining to the queen's: while she, in the most pathetic manner, implored her son to spare the gentle Mortimer! A parliament was immediately summoned for his condemnation; and he was sentenced to die, from the supposed notoriety of his crimes, without any form of trial. He perished by the hands of the hangman, at the Elmes near London: and the queen was confined, during life, to her house at Risings; where she languished out 25 years of sorrow rather than of penitence.

Edward having now taken the reins of government into his own hands, applied himself with industry and judgment, to redress all those grievances, which had either proceeded from want of authority in the crown, or the late abuses of it. He issued writs to the judges, enjoining them to administer justice, without paying any regard to the arbitrary orders of the great: and as thieves, robbers, murderers, and criminals of all kinds, had multiplied to an enormous degree during the public convulsions, and were openly protected by the powerful barons, who made use of them against their enemies, the king set himself seriously to remedy the evil, after exacting from the peers a solemn promise in parliament, that they would break off all connexion with such malefactors. The ministers of justice, animated by his example, employed the utmost diligence in discovering, pursuing, and punishing criminals; and the disorder was by degrees corrected.

In proportion as the government acquired authority at home, it became formidable to the neighbouring nations; and the ambitious spirit of Edward sought, and soon found an occasion of exerting itself. The wise and valiant Robert Bruce, king of Scotland, who had recovered by arms the independency of his country, and fixed it by

treaty, was now dead, and had left David, his son, a minor, under the guardianship of Randolph, earl of Murray, the companion of his victories. About this time Edward Baliol, son of John, formerly crowned king of Scotland, was discovered in a French prison by lord Beaumont, an English baron, who, in the right of his wife, claimed the earldom of Buchan in Scotland; and deeming Baliol a proper instrument for his purpose, procured him his liberty, and induced him to revive his claim to the Scottish crown. Many other English noblemen, who had obtained estates during the subjection of Scotland, were in the same situation with Beaumont. They also saw the utility of Baliol, and began to think of recovering their possessions by arms, and they applied to Edward for his concurrence and assistance. Edward was ashamed to avow their enterprise. He was afraid that violence and injustice would ever be imputed to him, if he attacked with superior force a minor king, and a brother-in-law, whose independent title had been so lately acknowledged by solemn treaty; but he secretly encouraged Baliol in his claim, connived at his assembling forces in the North, and gave countenance to the nobles who were disposed to join him. A force of near 3000 men was assembled, with which Baliol and his adherents landed on the coast of Fife.

Scotland was now in a very different situation from that in which it had appeared under the victorious Robert. Besides the loss of that great monarch, whose genius and authority preserved entire the whole political fabric, and maintained union among the unruly barons, lord Douglas, impatient of rest, had gone over to Spain in a crusade against the Moors, and there perished in battle. The earl of Murray, long declining through years and infirmities, had lately died, and been succeeded in the regency by Donald, earl of Mar, a man much inferior in talents; so that the military spirit of the Scots, though still unbroken, was left without a guide. Baliol had valour and activity, and his followers being firmly united by their common object, drove back the Scots who opposed his landing. He marched into the heart of the country; and with his small party defeated an army of 40,000 men, under the earl of Mar, of whom 12,000 are said to have been slain.

Baliol, soon after this victory, made himself master of Perth, and was crowned at Scone; while young Bruce, his competitor, was sent over to France with his betrothed wife, Jane, sister to king Edward. Scotland was subdued by a handful of men. But Baliol lost the kingdom by a revolution as sudden as that by which he had acquired it. His imprudence, or his necessities, making him dismiss part of his English followers, he was unexpectedly attacked near Annan by sir Archibald Douglas, and other chieftains of Bruce's party. He was routed; his brother, John Baliol, was slain; and he himself was chased into England in a miserable plight.

In this extremity, Baliol had again recourse to the English monarch, without whose assistance he was now become sensible he could neither recover nor keep possession of his throne. He offered to acknowledge Edward's superiority; to renew the homage for Scotland; and to espouse the princess Jane, if the pope's consent could be obtained for dissolving her former marriage, which was not yet consummated. Ambitious of retrieving that important superiority relinquished by Mortimer during his minority, Ed

ward willingly accepted the offer, and put himself at the head of a powerful army in order to reinstate Baliol in his throne. The Scots met him with an army more numerous, but less united, and worse supplied with arms and provisions. A battle was fought at Halidown-hill, a little north of Berwick; where about 30,000 of the Scots fell, and all the chief nobility were either killed or taken prisoners.

After this fatal blow, the Scottish nobles had no recourse but in submission. Baliol was acknowledged king by a parliament assembled at Edinburgh; the superiority of England was again recognized: many of the Scottish nobility swore fealty to Edward; who, leaving a considerable body of troops with Baliol to complete the conquest of the kingdom, returned to England with the remainder of his army. But the English forces were no sooner withdrawn, than the Scots revolted against Baliol, and returned to their former allegiance under Bruce. Edward was again obliged to assemble an army, and to march into Scotland. The Scots, taught by experience, withdrew into their hills and fastnesses. He destroyed the houses, and ravaged the estates of those whom he called rebels.

But this severity only confirmed them more in their obstinate antipathy to England and Baliol; and being now rendered desperate, they soon re-conquered their country from the English. Edward made anew his appearance in Scotland, and with like success. He found every thing hostile in the kingdom, except the spot on which he was encamped; and although he marched uncontrouled over the low countries, the nation itself was farther than ever from being broken or subdued. Besides being supported by their pride or anger, passions difficult to tame, the Scots were encouraged amid all their calamities, with daily promises of relief from France; and as a war was now likely to break out between that kingdom and England, they had reason to expect a division of the force which had so long overwhelmed and oppressed them.

With this war with France commenced that series of hostlities, which was scarcely interrupted for the space of a whole century, and drained both nations of men and money, to a degree which materially affected their internal prosperity; but as the scene of the contests was in France and the adjoining provinces, we shall defer our relation of them till we have described these countries.

In the year 1346, David Bruce, king of Scotland, whom his countrymen had recalled, was strongly solicited by his ally, Philip, to invade the northern counties of England. He accordingly assembled a great army, and carried his ravages as far as Durham. He was there met by queen Philippa, at the head of a body of 12,000 men, which she committed to the command of lord Percy. A fierce engagement ensued; and the Scots were broken, and chased off the field with great slaughter. Fifteen thousand of them were slain, among whom were the chancellor and earl-marshal. The king himself was taken prisoner, together with many of the principal nobility.

The great successes of Edward in his foreign wars had excited a strong emulation among the English nobility; and this prevailing spirit was this year farther promoted by the institution of the military order of the garter. A story prevails, though not supported by antient authority, that the countess of Salisbury dropped her garter at a court-ball; that the king took it, and observing some of his courtiers to smile, held up the

trophy, and called out, Honi soit qui mal y pense. Evil be to him that evil thinks. And as every incident of gallantry was in those days magnified into a matter of importance, he instituted the order of the garter, in commemoration of this event, though not without political views, and gave these words as the motto of the order.

A damp was, however, suddenly thrown over the triumphant festivity of the English court, by a destructive pestilence, which about this time invaded Britain, after having desolated the greatest part of the earth. It made its appearance first in the north of Asia, encircled all that vast continent, visited Africa; made its progress from one end of Europe to the other; and is computed to have swept away near a third of the inhabitants in every country through which it passed. Above 50,000 persons are said to have perished by it in London alone.

In the year 1357 Edward had the satisfaction to behold the two neighbouring potentates, with whom he was engaged in a war at the same time, prisoners in his capital. The king of Scotland, who had been 11 years in that condition, was soon after released, for the ransom of 100,000 marks sterling; and that prince delivered the sons of all the principal nobility as hostages for the payment.

John, king of France, who had been taken by Edward the black prince, at the battle of Poictiers, was set at liberty, in consequence of a treaty of peace; but many difficulties arising about the execution of some of the articles, he took the honourable resolution of coming over to England in person, in order to adjust them. His council endeavouring to dissuade him from this design, which they represented as rash and impolitic; and insinuated that he ought to elude, as far as possible, the execution of so disadvantageous a treaty. "Though justice and good faith," replied John, "were banished from the rest of the earth, they ought still to retain their habitation in the breasts of princes." And he accordingly came over to his former lodgings in the Savoy, where he soon after sickened and died.

The latter part of the reign of Edward was distinguished by misfortunes abroad, and decay of authority at home. The latter was chiefly occasioned by his extravagant attachment to Alice Pierce, a young lady of wit and beauty, whose influence over him had given such general disgust, as to become the object of parliamentary remonstrance.

The indolence naturally attendant on years and infirmities had also made Edward resign the administration into the hands of his son the duke of Lancaster, whose unpopular manners and proceedings weakened extremely the affections of the people to their sovereign. Mean while the prince of Wales died, leaving behind a character adorned with many eminent virtues. The king survived this melancholy event only about 12 months, leaving for his successor Richard, the son of the black prince.

During the reign of Edward III. the doctrines of the reformation were preached at Oxford by John Wickliff, a secular priest of great learning, ability, and integrity. He was born about the year 1324, in the parish of Wycliff, near Richmond, in Yorkshire; he was educated at Oxford, first at Queen's, and afterwards at Merton college. He possessed great credit in the university; for having taken the degree of doctor of divi-

nity, he read public lectures with great applause; in which he frequently exposed the impositions of the mendicant friars. He also published a defence of Edward III. against the pope, who had insisted on the homage to which his predecessor John had agreed. This defence was the cause of his being introduced into court, and of his being sent one of the ambassadors, in 1374, to Bruges, where they met the pope's nuncios, in order to adjust some disputed points relative to the authority of the holy see. He was presented by the king with the living of Lutterworth in Leicestershire, and obtained, in 1375, a prebend in the church of Westbury in Gloucestershire, and continued, till the death of Edward, to propagate his doctrines without molestation.

Richard II. was a weak prince, but his weakness was not immediately perceived or felt by the nation. He was only at his accession a boy of 11 years of age, from whom consequently little could be expected. The habits of order and obedience, which the nobility had been taught by the third Edward, still influenced them; and the authority of Richard's three uncles, the dukes of Lancaster, York, and Gloucester, sufficed to repress for a time that turbulent spirit, to which the great barons were so often subject during a weak reign. The different characters of those three princes rendered them also a counterpoise to each other; so that there appeared no new circumstance in the domestic situation of England, which could endanger the public peace, or give any immediate apprehensions to the lovers of their country.

But this flattering prospect proved delusive. Dicontents and dissensions soon took place among all orders of men. The first tumult was of the popular kind. In order to repair the expences of some fruitless armaments, the parliament had recourse to a poll tax upon every person, male and female, above 15 years of age. The great body of the people, many of whom were in a state of slavery, were grievously oppressed by this tax. and traced up to the first origin of mankind from one common stock, their equal right to liberty, and to all the benefits of nature. They often repeated their favourite distich,

> When Adam delv'd, and Eve span,
> Who was then a gentleman?

When the discontents of the populace were thus prepared, the insolence of a tax-gatherer, and the spirit of a blacksmith, blew them into a flame While the blacksmith was at work in a village of Essex, the tax-gatherer came into his shop, and demanded payment for his daughter. The father replied, that she was below the age prescribed by the statute: the tax-gatherer affirmed she was a full grown woman, and in proof of his assertion, attempted an indecency which incensed the blacksmith to such a degree, that he knocked the ruffian dead with his forge hammer. The bystanders applauded the action, and exclaimed that it was full time for the people to take vengeance on their tyrants, and assert their native rights. They flew to arms: the flame of sedition spread from county to county; and before the government had the least intimation of the danger, the disorder had grown beyond all controul or opposition.

These mutinous peasants, to the number of 100,000, assembled on Black-heath, un-

der their leader, Wat Tyler; and sent a message to the king, who had taken shelter in the tower, that they desired a conference with him. Richard sailed down the river in a barge for that purpose; but on approaching the shore, he discovered such symptoms of tumult and insolence, that he judged it prudent to return. Finding, however, that the tower would be no security against the lawless multitude, and afflicted at the ravages and cruelties of the rioters, who had broken into the city of London; plundered the merchants, and cut off the heads of all the gentlemen they could seize; the young king found it necessary to go out, and ask their demands. They required a general pardon; the abolition of slavery; freedom of commerce in market towns, without toll or impost; and a fixed rent on lands instead of the services due by villainage. These requests were highly reasonable: but the behaviour of Wat Tyler, their leader, who, in making his demands, frequently brandished his sword in a menacing manner, so incensed William Walworth, lord mayor of London, that he lifted up his mace, or, as others say, his spear, and struck Tyler a violent blow, which brought him to the ground, where he was instantly run through the body by another of the king's train. The mutineers, seeing their leader fall, prepared themselves for revenge; and the king and his whole company must have perished on the spot, had not Richard discovered an extraordinary presence of mind in that extremity. He ordered his attendants to stop, advanced alone towards the enraged multitude, and accosting them with an affable and intrepid countenance, "What! my good people," said he, "is the meaning of this commotion? be not concerned for the loss of your leader, I am your king: I will become your leader: follow me into the field, and you shall have whatever you desire." Over-awed by the royal presence, they implicitly followed him: and he peaceably dismissed them, after granting them their demands.

Richard's conduct on this occasion, considering that he was only 16 years of age, raised great expectations in the nation; but in proportion as he advanced in years, they gradually vanished, and his want of capacity, or at least of solid judgment, appeared in every measure which he adopted.

His first expedition was against Scotland, into which he marched at the head of an army of 60,000 men. The Scots did not pretend to make resistance against so great force: they abandoned, without scruple, their rugged territory to be pillaged and laid waste by the enemy, and made an incursion into the more fertile provinces of England, where they collected a rich booty, and returned in tranquillity to their own country. The English monarch, however, wandered over great part of the comparatively barren kingdom of Scotland, and led his army back into England, without taking vengeance on the enemy for their devastation. His impatience to return, and enjoy his usual pleasures and amusements, over-balanced every higher consideration, and made even revenge a motive too feeble to detain him.

Richard, like most weak princes, now resigned himself wholly to the direction of a favourite, Robert de Vere, earl of Oxford, a young nobleman of dissolute manners, whom he loaded with riches, with titles, and with dignities. He first created him marquis of Dublin, and afterwards duke of Ireland, with a parliamentary grant of the sovereignty of that kingdom for life. The usual, and but too often just complaints, against

the insolence of favourites, were soon loudly echoed, and greedily received in all parts of England.

A civil war was the consequence: the royal party was defeated; and Richard was obliged to resign the government into the hands of a council of 14, appointed by the parliament. The duke of Gloucester, who had been at the head of this insurrection, next entered an accusation against five of the king's ministers, who were declared guilty of high treason; and as many of them as could be seized were executed. The duke of Ireland made his escape beyond sea, as did Michael de la Pole, earl of Suffolk, who had discharged the office of lord high chancellor: both died abroad.

This humiliation of Richard did not continue long: in less than 12 months he was reconciled to his uncles, and exercised the regal authority in its full extent.

The next eight years passed away undistinguished by any remarkable event. The king, addicted to vulgar pleasures, spent his whole time in feasting and jollity; and dissipated in idle shew, or lavished upon worthless favourites, the revenues, which the people expected to see him employ in undertakings for the public honour and advantage.

Richard perceived that his uncle, the duke of Gloucester, strongly disapproved of this conduct, and declared himself, on all occasions, the enemy of his minions. He suspected, or affected to believe, that Gloucester aspired to the crown, and ordered him unexpectedly to be arrested, and carried over to Calais, where he was soon after murdered.

The destruction of the duke of Gloucester was followed by a misunderstanding among his enemies; and the duke of Hereford, in particular, went so far as to accuse the duke of Norfolk in parliament of having spoken disrespectfully of the king. Norfolk denied the charge; and offered to prove his innocence by duel. The challenge was accepted; but while the nation was expecting the event, the king stopped the duel, and decided the cause, by banishing Hereford for 10 years, and Norfolk for life.

The sentence pronounced upon these two noblemen appears to have been impartial, but it surely was not equitable. The one was condemned without being charged with any offence; the other without being convicted of any crime. It was also unpopular. Richard's conduct in this affair was considered as a mark of the pusillanimity of his temper: and the weakness and fluctuation of his councils, at least, appear on no occasion more evident.

Henry duke of Hereford, being a man of great prudence and self command, behaved himself with so much humility after his condemnation, that the king promised to shorten the term of his exile four years; and also granted him letters patent, impowering him, in case any inheritance should accrue to him during the interval, to enter into immediate possession. But Hereford, who was son to the duke of Lancaster, had no sooner left the kingdom, than Richard's jealousy of the power and riches of that family revived; and he grew sensible, that by Gloucester's death, he had only removed a counterpoise to the Lancastrian interest, which was now become formidable to the throne. He therefore took every method to sully abroad the reputation of Henry duke of Hereford, and to obstruct his alliances, by representing him as guilty of treasonable practices; and when the

duke of Lancaster died, he revoked his letters patent to Henry, and retained possession of the family estate.

These instances of rapacity and severity, and the circumstances with which they were accompanied, threw upon Richard the universal odium of the people. Hereford, now duke of Lancaster, had formerly acquired the esteem of the public by his valour and abilities. He was connected with most of the principal nobility, by blood, alliance, or friendship; his misfortune added double lustre to his merit; all men made his case their own: they entered into his resentments; and they turned their eyes towards him as the only person who could retrieve the lost honour of the nation, or reform the abuses of government.

While the minds of men were thus disposed, Richard went over to quell an insurrection in Ireland, and thereby imprudently afforded his exiled cousin an opportunity of gratifying the wishes of the nation. Henry landed at Ravenspur, in Yorkshire, accompanied by only 60 persons. But he was suddenly joined by the earls of Northumberland and Westmoreland, two of the most potent barons in England, and the malcontents in all quarters flew to arms. He solemnly declared that he had no other purpose in this invasion than to recover the duchy of Lancaster, unjustly detained from him; and he entreated his uncle, the duke of York, who had been left guardian of the kingdom, not to oppose a loyal and humble supplicant in the recovery of his legal patrimony. His entreaties had the desired effect. The guardian embraced his cause, and he immediately found himself master of England.

Richard no sooner received intelligence of this invasion, than he hastened over from Ireland, and landed at Milford haven, with a body of 20,000 men. But even that small army was seized with the spirit of disaffection, and the king found himself almost entirely deserted. In this extremity he fled to the Isle of Anglesey, where he proposed to embark for France, and there wait the return of their subjects to a sense of their duty. But before he had an opportunity of carrying his design into execution, the earl of Northumberland waited upon him from the duke of Lancaster, with the strongest professions of loyalty and submission; and Richard was so credulous as to put himself in the power of his enemy: he was carried about in an abject manner, exposed to the insults of the populace; deposed, confined in prison, and afterwards murdered.

Thus died a weak prince, whose reign was oppressive and inglorious, but his death proved the beginning of much greater calamities than the nation had ever endured since the Norman invasion.

The condition of Scotland after the capture of David Bruce was far from happy. The heirs of their families were deposited in the hands of the English as pledges for the discharging of the ransom for the king, but so many difficulties arose from the mutual hatred of the two nations, that the affair, after various negociations, remained unsettled at the time of his decease: he died in 1371, and was succeeded by Robert II. the first monarch of the unfortunate house of Stuart. His reign was disturbed by continual hostilities with the English, and is rendered remarkable for a very strict league between France and Scotland, which served, more than any thing, to inflame the animosity which had long subsisted between the two British nations.

On the death of Robert II. which happened in 1390, the crown devolved upon his eldest son Robert III. He confirmed the truce which had lately been made with England, and renewed the treaty with France; but the beginning of his reign was disturbed by the wars of the petty chieftains against each other: he lost much of his popularity by introducing the title of duke, and appearing well disposed for friendship with Richard II In the beginning of this period, the state of Ireland was tolerably happy. John, who had a partiality for that island, governed his Irish subjects by a regular code of laws, which were deposited in the exchequer of Dublin: he made a new and more ample division of the king's lands into counties, where sheriffs and many other officers were appointed. John de Grey, bishop of Norwich, the governor, is said to have managed their affairs so happily, that during the violent contentions between John and his barons, Ireland enjoyed an unusual degree of tranquillity.

In 1219, the commotions were renewed, through the immeasurable ambition and turbulence of the English barons, who despised all controul, and oppressed the inhabitants in a terrible manner. The disorders in England during the reign of Henry III. encouraged them to despise the royal authority; they were ever the secret enemies and sometimes the avowed adversaries of each other, and in many places where they had obtained settlements, the natives were first driven into insurrections by their cruelty, and then punished with double cruelty for their resistance.

Matters continued in this deplorable state till the latter part of the reign of Edward I. when the disorders of the realm were in some degree checked, though by no means terminated or subdued. The incursions of the natives were repressed, and the English lords began to live on better terms with each other; when the Scottish invasion, under Edward Bruce, filled the island with all the horrors of war and famine. The defeat and death of Bruce did not put a stop to the disturbances of this unhappy country. The contentions of the English with each other and with the Irish, and of the Irish among themselves, still continued to rage with unabated violence, and rendered abortive every attempt to promote good order or civilization. In 1367 was passed the famous statute of Kilkenny. The preamble to this act recites, that the English had become mere Irish in their language, names, apparel, and manner of living; had rejected the English laws, and submitted to those of the Irish, with whom they had united by marriage alliance, to the ruin of the commonwealth: it was therefore enacted, that marriage, nurture of infants, &c. with the Irish, should be considered and punished as high treason Again, if any man of English race shall use an Irish name, the Irish language, or the Irish apparel, or any mode or custom of the Irish, the act provides, that he shall forfeit lands and tenements, until he hath given security in the court of chancery to conform in every particular to the English manners, and if he hath no lands, that he shall be imprisoned till the like security be given. The Irish law was pronounced to be pernicious, and an innovation lately introduced among the English subjects; and it was therefore ordained, that in all their controversies they should be governed by the common law of England, and that whoever should submit to the Irish jurisdiction, should be adjudged guilty of high treason. As the English had been accustomed to make peace or war with the bordering Irish at pleasure, they were now expressly

prohibited from levying war, without special warrant from the state. It was also made highly penal for the English to permit their Irish neighbours to graze their lands, to present them to ecclesiastical benefices, or to receive them into monasteries or religious houses ; to entertain their bards, who perverted their imagination by idle tales ; or their news-tellers, who seduced them by false reports. It was made felony to impose or cess any forces upon the English subject against his will. And as the royal liberties and franchises were become sanctuaries for malefactors, express power was given to the king's sheriffs to enter into all franchises, and there to apprehend felons and traitors. Lastly, because the great lords, when they levied forces for the public service, acted with partiality, and laid unequal burdens upon the subjects, it was ordained, that four wardens of the peace in every county should adjudge what men or armour every lord or tenant should provide. The statute was promulged with great solemnity ; and the bishops, the better to enforce obedience, denounced an excommunication on those who should presume to violate it in any instance. From this time the breach between the two nations became still wider, disorders increased, and the influence of the English daily declined.

In this period, the purity of stile was less cultivated, and the study of the latin classics greatly declined, but a few eminent men appeared, who enlarged the circle of the sciences by a laborious attention to experimental philosophy. Among these philosophers, the first place is due to Roger Bacon, a Franciscan friar, who was born near Ilchester, in Somersetshire, in the year 1214, and died, after being greatly persecuted for his learning, in 1294. The reader will be astonished to find, that this great luminary of the 13th century was a profound linguist and grammarian ; that he was well versed in geography and astronomy ; and that he understood the theory and practice of perspectives, the use of convex and concave glasses, the camera obscura, burning glasses, and telescopes, with the art of making them ; that he knew the great error of the kalendar, assigned the cause, and proposed the remedy ; that he understood chronology, that he was an adept in chemistry, and was really the inventor of gunpowder ; lastly, that he was an able physician, mathematician, logician, metaphysician, and theologist.

CHAPTER VIII.

GREAT BRITAIN AND IRELAND——*From the accession of Henry IV. to the accession of Henry VII.*

THE beginning of the reign of Henry IV. the stile assumed by the duke of Lancaster, was stained by many acts of violence and blood. All who opposed his title fell a sacrifice to his rigid policy, and superstition was called in, to swell, by new crimes, the horrid catalogue. While a subject, Henry was believed to have strongly imbibed the principles of Wickliffe, who had died in peace in the reign of Richard II. but finding himself possessed of the throne by so precarious a title, this politic prince thought superstition a necessary engine of public authority. A law was accordingly enacted, that when any heretic, who relapsed, or refused to abjure his opinions, was delivered over to the secular arm, by the bishop and his commissaries, he should be committed to the flames by the civil magistrate, before the whole people. This weapon did not long remain unemployed in the hands of the clergy. William Sawtree, a clergyman in London, had been condemned by the convocater at Canterbury; his sentence was ratified by the house of peers; and then he suffered the violence of fire, because he refused to think as the church directed, in opposition to his own conscience and the word of God.

But all the prudence and precaution of Henry could not shield him from numerous alarms. He was threatened from France with an invasion, which was only prevented by the disorders in that country; and the revolution in England was speedily followed by an insurrection in Wales. Owen Glendour, descended from the antient princes of that country, had become obnoxious, on account of his attachment to Richard; and Reginald, lord Grey of Ruthyn, who was closely connected with the new king, and who enjoyed a great fortune in the marches of Wales, thought the opportunity favourable for oppressing his neighbour, and taking possession of his estate. Glendour, provoked at the injustice, and still more at the indignity, recovered possession by the sword. Henry sent assistance to Grey, the Welch took part with Glendour; a tedious and troublesome war was kindled, which Glendour long sustained by his valour and activity, aided by the natural strength of the country, and the untamed spirit of the inhabitants.

The Scots also were tempted by these disorders to make incursions into England; and Henry, desirous of taking revenge upon them, conducted an army as far north as Edinburgh. But finding that the Scots would neither submit nor give him battle, he returned, without effecting any thing of consequence. Next season, however, Archibald, earl of Douglas, who, at the head of 12,000 men, attended by many of the principal nobility of Scotland, had made an irruption into the northern counties, was overtaken by the Percies of Northumberland on his return, at Homeldon, on the borders of England, where a fierce battle ensued, and the Scots were totally routed. Douglas himself

was taken prisoner, as were the earls of Angus, Murray, Orkney, and many others of the Scottish nobility and gentry.

When Henry received intelligence of this victory, he sent the earl of Northumberland orders not to ransom his prisoners; a privilege which that nobleman regarded as his right, by the then received laws of war. The king intended to detain them, that he might be able, by their means, to make an advantageous peace with Scotland. But by this selfish policy, he gave fresh disgust to the powerful family of Northumberland. The impatient spirit of Harry Percy, commonly known by the name of Hotspur, and factious disposition of the earl of Worcester, younger brother of the earl of Northumberland, inflamed the discontents of that nobleman; and the precarious title of Henry tempted Northumberland to seek revenge, by overturning that throne which he had at first established. He entered into a correspondence with Glendour; he set the earl of Douglas at liberty, and made an alliance with that martial chieftain. But when war was ready to break out, the earl of Northumberland was unfortunately seized with a sudden illness at Berwick; and young Percy, taking the command of the troops, marched towards Shrewsbury, in order to join his forces with those of Glendour. The king had happily a small army on foot, with which he intended to act against the Scots; and knowing the importance of celerity in all civil wars, he instantly hurried down, in order to give battle to the rebels. He approached Percy near Shrewsbury, before that nobleman was joined by Glendour; and the policy of one leader, and impatience of the other, made him hasten to a general engagement. The armies were nearly equal in number, consisting of about 12,000 men each; and we scarcely find any battle in those ages, where the shock was more terrible or more constant. Henry exposed his person in the thickest of the fight; and the prince of Wales, his gallant son, whose military atchievements became afterwards so famous, and who here performed his noviciate in arms, signalized himself in a remarkable manner.

Percy supported that renown which he had acquired in many a bloody combat; and Douglas, his antient enemy, and now his friend, still appeared his rival, amid the horror and confusion of the fight. This nobleman performed feats of valour which are almost incredible: he seemed determined the king of England should fall that day by his arm: he sought him all over the field; and as Henry had accoutred several captains in the royal garb, in order to encourage his troops, the sword of Douglas rendered that honour fatal to many. But while the armies were contending in this furious manner, the death of Hotspur, accomplished by an unknown hand, decided the victory; the royalists prevailed. There are said to have fallen on both sides near 2300 gentlemen.

The earl of Northumberland, having recovered from his sickness, had levied a fresh army, and was on his march to join his son: but being opposed by the earl of Westmoreland, he came with a small retinue to the king at York: he pretended that his sole intention in arming was to mediate between the parties. Henry thought proper to admit the apology, and even granted him a pardon for his offence. All the other rebels were treated with equal lenity; and, except the earl of Worcester and sir Richard Vernon, who were regarded as the chief authors of the insurrection, no person en-

gaged in that dangerous conspiracy seems to have perished by the hands of the executioner.

This rebellion was no sooner quelled than another was ready to break out, supported by the earl of Nottingham and the archbishop of York. But it was discovered before it was ripe for execution, and the earl and the archbishop were both beheaded. Northumberland also was concerned in this second rebellion, but made his escape into Scotland, whence returning to commit new disorders, he was slain at Bramham, along with lord Bardolf. The defeat of Glendour, and the submission of the Welch, which happened soon after, freed Henry from all his domestic enemies; and a fortunate event, which had thrown the heir to the crown of Scotland into his hands, made him also secure on that quarter. Robert III. king of Scotland, though a prince of slender capacity, was extremely innocent and inoffensive in his conduct. But Scotland at that time was still less fitted than England for cherishing a sovereign of such a character. The duke of Albany, Robert's brother, a prince of a boisterous and violent disposition, had assumed the government of the state; and not satisfied with present authority, he entertained the criminal purpose of extirpating his brother's children, and of acquiring the crown to his own family: he threw into prison David, his eldest nephew, who there perished by hunger; so that James, the younger brother of David, alone stood between the tyrant and the throne. Robert, therefore, sensible of his son's danger, embarked him on board a ship, with a view of sending him to France, and of trusting him to the protection of that friendly power. Unfortunately, however, the vessel was taken by the English; and although there subsisted at that time a truce between the two kingdoms, Henry refused to restore the young prince his liberty. But he made some amends for this want of generosity, by bestowing on James an excellent education, which afterwards qualified him, when he mounted the throne, to reform, in some measure, the rude and barbarous manners of his native country.

The remaining part of the reign of Henry IV. was chiefly spent in regulating the affairs of his kingdom; which he at length brought into much order, by his valour, prudence, and address. In his latter years, however, he began to turn his eyes towards those bright projects, which his more fortunate son conducted so successfully against the French monarchy; but his declining health prevented him from attempting to put any of them in execution. Afflicted for some years with violent fits, which frequently deprived him of all sensation, and threatened his existence, he was carried off by one of them at Westminster, in the 46th year of his age, and the 13th of his reign.

The precarious situation of Henry IV. had so much infected his temper with jealousy, that he entertained unreasonable suspicions of the loyalty of his eldest son; and during the latter years of his life, he excluded that prince from all share in public business. The active spirit of young Henry, restrained from its proper employment, broke out in extravagancies of every kind. Such a course of life naturally threw him among companions unbecoming his rank, but whose irregularities he seconded and indulged; he was detected in many sallies, which to severer eyes appeared totally unworthy of his station.

But the nation in general considered the young prince with more indulgence. They

observed so many gleams of generosity, spirit, and magnanimity breaking through the cloud, which a wild conduct threw over his character, that they never ceased hoping for his amendment. And the first steps taken by young Henry, after the death of his father, confirmed all those prepossessions entertained in his favour: he called together his former companions; acquainted them with his intended reformation; exhorted them to imitate his example; but strictly prohibited them, until they had given proofs of their amendment, from appearing any more in his presence: while the wise ministers of his father, who had checked his riots, were received with all the marks of favour and confidence: they found that they had unknowingly been paying the highest court to him. The satisfaction of those who feared an opposite conduct was augmented by their surprise; so that the character of the young king appeared brighter than if it had never been shaded by any errors. Henry's first care was to banish, as much as possible, all party distinctions. The instruments of the violences of the preceding reign, who had been advanced from their blind zeal for the Lancastrian interest, more than from their integrity or abilities, gave place every where to men of more honourable character; and virtue and talents seemed now to have a spacious field, in which they might display themselves to advantage.

There were, however, two capital errors in the public conduct of Henry V. The first of these was the persecutions of the Lollards, or followers of Wickliffe, who were now become a formidable body, and excited the envy and malignity of the clergy. At the head of this sect was lord Cobham, who was indicted for heresy and condemned, but made his escape from the tower before the day appointed for his execution. After a variety of distresses he was seized and hanged as a traitor, and his body was burnt on the gibbet, in consequence of the sentence pronounced against him as a heretic.

The second great error of Henry was his prosecuting an unjust claim to the crown of France. This occasioned a war, which drained the nation of immense treasures and numerous armies, and at last terminated in the loss of almost all our continental possessions. During, however, the reign of Henry V. the most astonishing advantages were obtained over France, particularly at the justly celebrated battle of Agincourt. To crown all the other prosperities of Henry, his queen was delivered of a son, who was called by his father's name, and whose birth was celebrated by rejoicings no less pompous, or less sincere, at Paris than at London. The infant prince seemed to be universally regarded as the heir of both monarchies. But the glory of Henry, when near its height, was suddenly restrained by the hand of nature, and all his towering projects vanished into air: he was seized with a malady, which the surgeons of that age wanted skill to treat with judgment, namely, a fistula, which proved mortal. When he found his end approaching, he sent for his brother the duke of Bedford, the earl of Warwick, and a few more noblemen, whom he had honoured with his confidence. To them he delivered, in great composure, his last will with regard to the government of his kingdom and family. He left the regency of France to his eldest brother, the duke of Bedford; that of England to his younger brother, the duke of Gloucester; and the care of his son's person to the earl of Warwick.

Henry V. possessed many eminent virtues, and his abilities were equally conspicuous

in the cabinet and in the field. The boldness of his plans was no less remarkable than his personal valour in carrying them into execution; he had the talent of attaching his friends by affability, and of gaining his enemies by address and clemency; his exterior figure, as well as his deportment, was engaging; his stature somewhat above the middle size, his countenance beautiful, his proportion elegant; and he excelled in all warlike and manly exercises. Catherine of France, widow of Henry V. married soon after his death sir Owen Tudor, a gentleman of Wales, said to be descended from the antient princes of that country. She bore him two sons; the eldest of whom was created earl of Richmond, the second earl of Pembroke. The family of Tudor, first raised to distinction by this alliance, afterward mounted, as we shall have occasion to see, the throne of England.

The minority of Henry VI. gave occasion to his great men to enter into many disputes for power, and the animosity which had risen among them, increased in violence after the death of the duke of Bedford, in 1435: they were then divided into two parties, one headed by the duke of Gloucester, and the other by the cardinal of Winchester.

In proportion as Henry advanced in years, his feeble character became more fully known in the court, and was no longer ambiguous to either faction. Of the most harmless, inoffensive, simple manners, but of the most slender capacity, he was fitted, both by the softness of his temper, and the weakness of his understanding, to be perpetually governed by those who surrounded him; and it was easy to foresee, that his reign would prove a perpetual minority. As he had now reached the age of manhood, it was natural to think of choosing him a queen: and each party was ambitious of making him receive one from their hand, as it was probable this circumstance would decide for ever the victory between them. The cardinal of Winchester proved successful; and Henry was contracted to Margaret of Anjou, daughter of Regnier, titular king of Sicily, Naples, and Jerusalem, descended from a count of Anjou, who had left these magnificent titles to his posterity, without any real power or possessions. She was the most accomplished princess of that age, both in body and mind; and seemed to possess those qualities, which would enable her to acquire an ascendant over Henry, and to supply all his defects and weaknesses. The treaty of marriage was ratified in England: and Margaret, on her arrival, fell immediately into close connections with the cardinal and his party; who, fortified by her powerful patronage, resolved on the final ruin of the duke of Gloucester.

This generous prince, worsted in all court intrigues, for which his temper was not suited, but possessing in an eminent degree the favour of the public, had already received from his rivals a cruel mortification, which it was impossible a person of his spirit could ever forgive although he had hitherto borne it without violating public peace: his duchess, daughter of Richard lord Cobham, had been accused of witchcraft; and it was pretended, that there was found in her possession a waxen figure of the king, which she and her associates, sir Roger Bolinbroke, a priest, and one Mary Jordan of Eye, melted in a magical manner before a slow fire, with the intention of making Henry's force and vigour waste away by the like insensible degrees. The nature

of this crime, as the philosophic Hume ingeniously observes, so opposite to all common sense, seems always to exempt the accusers from observing the rules of common sense in their evidence. The prisoners were pronounced guilty: the duchess was condemned to do penance, and to suffer perpetual imprisonment; and her supposed accomplices were executed. But the people, contrary to their usual practice on such marvellous trials, acquitted the unhappy sufferers, and ascribed these violent proceedings solely to the malice of the duke's enemies.

The cardinal of Winchester and his party, therefore, became sensible that it was necessary to destroy a man, whose popularity made him dangerous, and whose resentment they had so much cause to apprehend: he was accused of treason, and thrown into prison, where he was soon after found dead in bed; and although his body bore no outward marks of violence, no one doubted but he had fallen a victim to the vengeance of his enemies.

The English were expelled from all their continental dominions except Calais, and though there was neither peace nor truce, the war was thus in a manner brought to a conclusion.

The more Henry was known, the more his authority was despised; and as the English had abandoned their dominions in France, and were now engaged in no foreign wars, men of restless and ambitious spirits took occasion to disturb his government, and tear, with intestine commotions, the bowels of their native country.

But the miseries of Henry and of England did not arise solely from these causes: a pretender to the crown appeared; and a title which had never been disputed during the prosperous reign of Henry V. was now called in question under his feeble successor. This competitor was Richard duke of York, descended by his mother from Philippa, only daughter of the duke of Clarence, second son of Edward III. and consequently stood in the order of succession before the king, who derived his descent from the duke of Lancaster, third son of that monarch. Such a claim could not, in many respects, have fallen into more dangerous hands. The duke of York was a man of valour and abilities, which he had found frequent opportunities of displaying. In the right of his father, the earl of Cambridge, he bore the rank of first prince of the blood; he possessed an immense fortune: and was allied by marriage, or otherwise, to most of the principal families in the kingdom: he was generally beloved by the people; whose discontents, at this time, rendered every combination of the great more dangerous to the throne.

The administration of government was now in the hands of the queen and the earl of Suffolk, who had attracted universal odium. Margaret was still regarded as a French woman, and a latent enemy to the kingdom, who had betrayed the interests of England, in favour of her family and her country. Suffolk was considered as her accomplice; and the murder of the duke of Gloucester, in which both were known to have been concerned, rendered them yet more obnoxious to the nation. The partizans of the duke of York took advantage of these causes of popular discontent, to impeach the earl of Suffolk in parliament of various crimes and misdemeanors; and the king, in order to save his minister, banished him the kingdom for five years. But his enemies,

sensible that he still possessed the queen's confidence, and would be recalled on the first favourable opportunity, employed a captain of a ship to intercept him in his passage to France: he was accordingly seized near Dover; his head was struck off on the side of a long-boat, and his body thrown into the sea.

The duke of Somerset succeeded to Suffolk's power in the administration and credit with the queen; and as he was the person under whose government the French provinces had been lost, the people, who always judge by events, soon made him equally the object of their animosity. In consequence of these discontents, the house of commons presented a petition to the king, praying him to remove the duke of Somerset for ever from his person and councils; and as Henry fell about this time into a distemper which increased his natural imbecility, the queen and the council, unable to resist the popular party, were obliged to yield to the torrent. They sent Somerset to the tower, and appointed the duke of York lieutenant of the kingdom, with powers to open and hold a session of parliament; and that assembly created him protector during pleasure.

In the mean time Henry recovering from his distemper, so far as to be able to maintain the appearance of royal authority, his friends urged him to resume the government, and to annul the regency of Richard, to release Somerset from the tower, and to commit the administration into the hands of that nobleman. The duke of York, sensible of his danger, levied an army, in order to support his parliamentary commission, but without advancing any pretensions to the crown, though his title was generally acknowledged. A battle was fought near St. Alban's where the Lancastrians were routed, and the dukes of Somerset and Northumberland slain: the king himself was made prisoner by the duke of York, who treated him with great tenderness; and Henry was obliged to resign, what he valued little, the whole authority of the crown into the hands of his rival.

Richard, however, did not yet lay claim to the royalty; he was still content with the title of protector; and an outward reconciliation took place between the parties. A solemn procession to St. Paul's was appointed, in order to make known this amity to the people. But a contest for a crown could not be thus peaceably accommodated. Each party watched only for an opportunity of subverting the other; and the smallest incident, without any formed design, was sufficient to dissolve the seeming harmony. Two servants of the rival houses quarrelled; their companions took part in the fray; a fierce combat ensued; and both parties, in every county in England, openly made preparations for deciding the contest by arms.

A battle was fought at Blore-heath, on the borders of Staffordshire; where the Lancastrians were defeated, and chased off the field with considerable loss. But that victory was not sufficient to decide the fate of England; and fortune soon shifted sides. When the two armies approached each other near Ludlow, and a general action was every hour expected, sir Andrew Trollop, who commanded a choice body of veterans, deserted to the king; and the Yorkists were so much dismayed at that instance of treachery, which made every man suspicious of his fellow, that they separated without striking a blow.

In this extremity the duke of York fled to Ireland, where he had formerly acquired much

popularity; and his partizans in England kept themselves every where in readiness to rise on the first summons from their leaders. That summons was given by the earl of Warwick, governor of Calais, the most extraordinary man of his time; and, from the subsequent events, commonly known by the appellation of the King-maker. He landed in Kent, where he was joined by several persons of distinction; and as the people bore him an unlimited affection, his army increased every day: he entered London amid the acclamations of the populace; he advanced to meet the royal army, which hastened from Coventry to attack him; and a battle was fought at Northampton, where the Lancastrians were totally routed. Henry himself, that empty shadow of a king, was again made prisoner, and once more carried in triumph to his capital. A parliament was now summoned at Westminster, where the duke of York soon appeared from Ireland, and put in his claim to the crown. He advanced towards the throne; and addressing himself to the house of peers, pleaded his cause before them as his natural and legal judges: he gave them a deduction of his title by descent; mentioned the cruelties by which the house of Lancaster had paved its way to sovereign power; insisted on the calamities which had attended the government of Henry; and exhorted them to return to the right path, by doing justice to the lineal heir; then respectfully left the house, as no one desired him to seat himself on the throne. Such a degree of moderation is not perhaps to be paralleled in history; and was little to be expected in those violent and licentious times, from a prince who had a victorious army at his command.

The peers, on their part, discovered an equal share of firmness and composure. They called in some of the most considerable members among the commons to assist in their deliberations: and after having heard, in several successive days, the reasons alleged for the duke of York, they declared his title certain and indefeasible; but in consideration that Henry had enjoyed the crown, without dispute or controversy, during a course of years, they determined that he should continue to possess the title and dignity of king during the remainder of his life; that the administration of government, in the mean while, should remain with Richard, and that he should be acknowledged the true and lawful heir of the monarchy. The duke acquiesced in this decision, and Henry himself, being a prisoner, could not well oppose it.

The duke of York, however, enjoyed but a short while the honour of this new settlement, and never attained the envied title of king. After the unfortunate battle of Northampton, queen Margaret had fled with her infant son to Durham, and thence to Scotland; but soon returning, she applied to the northern barons, and employed every argument to procure their assistance: her affability, insinuation, and address, talents in which she excelled, aided by caresses and promises, wrought a powerful effect on all who approached her. The admiration of her great qualities was succeeded by compassion towards her helpless condition. The nobility of that quarter entered warmly into her cause; and she soon found herself at the head of an army of 20,000 men collected with a celerity which was neither expected by her friends, nor apprehended by her enemies.

In the mean time, the duke of York hastened northward with a body of 5000 men,

to suppress, as he imagined, the beginning of an insurrection. He met the queen near Wakefield; and though he found himself so much out-numbered by the enemy, his pride would not permit him to fly before a woman: he gave battle, was killed in the action; and his body being found among the slain, his head was cut off by Margaret's orders, and fixed on the gates of York, with a paper crown upon it, in derision of his pretended title; his second son, the earl of Rutland, was taken prisoner, and barbarously murdered, in cool blood, by lord Clifford, in revenge for the death of his father, who had fallen in the battle of St. Alban's. The earl of Salisbury also was taken prisoner, and immediately beheaded, with several other persons of distinction. This inhuman practice, thus began, was continued by both parties from a vindictive spirit, which affected to conceal its enormity under the pretence of retaliation.

Immediately after this important victory, queen Margaret marched towards London, where the earl of Warwick was left with the command of the Yorkists. On the approach of the Lancastrians, that nobleman led out his army, reinforced by a strong body of Londoners, and gave battle to the queen at St. Alban's. Margaret was again victorious, by the treachery of one Lovelace, who commanded a considerable body of the Yorkists, and withdrew from the combat. She had the pleasure of seeing the formidable Warwick fly before her, and of rescuing the king, her husband, from captivity. But Margaret's triumph, though glorious, was of short duration, and not altogether complete.

Warwick was still in possession of London, on which she had made an unsuccessful attempt; and Edward, earl of Marche, eldest son of the late duke of York, having gained an advantage over the Lancastrians at Mortimer's cross, near Hereford, advanced upon her from the other side, and was soon in a condition to give her battle with superior force. She was sensible of her danger, in such a situation, and retreated with her army to the North; while Edward entered the capital, amid the acclamations of the citizens and immediately opened a new scene to his party.

This young prince, who was remarkable for the beauty of his person, for his bravery, his activity, his affability, and every popular quality, found himself so high in public favour, that he resolved no longer to confine himself within those narrow limits which had been found by experience so prejudicial to his father's cause: he determined to assume the name and dignity of king; to insist openly on his claim, and thenceforth to treat the opposite party as traitors and rebels to his lawful authority. But a national consent, or the appearance of it at least, seemed necessary to precede so bold a measure; and, for this purpose, instead of convening a parliament, which might have been attended with dangerous consequences, the populace were assembled in St. John's fields. An harangue was pronounced to this mixed multitude by Warwick, setting forth the title of Edward, and inveighing against the tyranny and usurpation of the house of Lancaster; after which the people were asked, whether they would have Henry or Edward for their king. They universally exclaimed, "Edward of York." This popular election was ratified by an assembly of lords and bishops, and the new king was proclaimed under the title of Edward IV.

Young Edward, now in his 20th year, was of a temper well fitted to make his way

through such a scene of war, havoc, and devastation, as was presented before him; he was not only bold, active, and enterprising, but his hardness of heart, and severity of character, rendered him impregnable to all those movements of compassion, which might relax his vigour in the prosecution of the most bloody designs upon his enemies; hence the scaffold, as well as the field, during this reign, incessantly smoked with the noblest blood of England. The animosity between the two contending families was now become implacable; and the nation, divided in its affections, took different symbols of party. The adherents of the house of Lancaster chose, as their mark of distinction, the red rose; those of York assumed the white: and these civil wars were thus known over Europe by the name of the "quarrel between the two roses."

Queen Margaret, as we have observed, had retired to the North. There great multitudes flocked to her standard; and she was able, in a few weeks, to assemble an army of 60,000 men. The king and the earl of Warwick hastened with an army of 40,000 to check her progress. The two armies met at Towton, and a fierce and bloody battle ensued. The bow, then commonly in use, was soon laid aside, and the sword decided the combat, which terminated in a complete victory on the side of the Yorkists. Edword issued orders to give no quarter; and the routed army was pursued as far as Tadcaster, with great bloodshed and confusion. Above 36,000 men are said to have fallen in the battle and pursuit. Henry and Margaret had remained at York during the action; but learning the defeat of their army, and being sensible that no place in England could now afford them shelter, they fled with great precipitation into Scotland.

We must here say a few words concerning the state of that country. The Scots, notwithstanding the animosity between the two nations, had never made any vigorous attempts to take advantage either of the wars which England carried on with France, or of the civil commotions which arose from the competition for the crown.

James I. who had been long a prisoner in England, and had received his education there, was liberated by a treaty in the year 1424. In the same year he married an English lady, Joan Beaufort, grand-daughter of John of Gaunt, duke of Lancaster. He maintained a constant friendship with the English nation, and employed his reign in recovering that portion of his paternal estate, depressing the nobility, and reforming abuses.

He protected and encouraged learning and learned men, and even kept a diary in which he wrote down the names of all the learned men whom he thought deserving of his encouragement. James himself wrote some poetry; and in music was such an excellent composer, that he is with good reason looked upon as the father of Scots music, which has been so much admired for its elegant simplicity; he introduced organs into his chapels, and a much better style of architecture into all buildings, whether civil or religious. Neither did he confine his cares to the fine arts, but encouraged and protected those of all kinds which were useful to society; and, in short, he did more towards the civilization of his people, than had been done by any of his predecessors.

He, however, used so much severity, that he was at last murdered, in the year 1437 The perpetrators of this murder were the earl of Athol; Robert Grahame, who was

connected with the earl, and who was discontented on account of his losing the estate of Strathern, which had been re-annexed to the crown; and Robert, grandchild and heir to the earl of Athol, and one of the king's domestics.

The king had dismissed his army, without even reserving to himself a body-guard, and was at supper in a Dominican convent in the neighbourhood of Perth. Grahame had for some time been at the head of a gang of outlaws, and is said to have brought a party of them to Perth in the dead of the night, where he posted them near the convent. Walter Straton, one of the king's cup-bearers, went to bring some wine to the king while at supper; but perceiving armed men standing in the passages, he gave the alarm, and was immediately killed. Catharine Douglas, one of the queen's maids of honour, ran to bolt the outer door; but the bar was taken away by Robert Stuart, in order to facilitate the entrance of the murderers. The lady thrust her arm into the staple; but it was instantly broken, and the conspirators rushed in upon the king. Patrick Dunbar, brother to the earl of March, was killed in attempting to defend his sovereign, and the queen received two wounds in attempting to interpose herself betwixt her husband and the daggers of the assassins. James defended himself as long as he could; but at last expired under the repeated strokes of his murderers, after having received 28 wounds.

The minority of his son and his successor James II. and the distractions incident on it, prevented the Scots from molesting England.

But when the quarrel between the rival houses of York and Lancaster was become memable, unless by the total extinction of one of the parties, James II. who had now risen to man's estate, was tempted to make use of that opportunity, in hopes of recovering those places which the English had conquered from his ancestors: he invested the castle of Roxburgh, and had provided himself with some pieces of cannon, in order to forward the siege; but one of them unhappily bursting, as he was firing it, put an end at once to his life and his undertaking: his son and successor, James III. was yet a minor; and the disturbances common to minorities ensued in the government. The queen dowager, Anne of Gueldors, aspired to the regency; the house of Douglas opposed her pretensions: so that the queen of England, when she arrived in Scotland, found there a people little less divided by faction than those from whom she had fled.

The Scottish council, however, agreed to assist Margaret, on her offering to deliver up to them the important fortress of Berwick, and to contract her son in marriage with a sister of James their king. And Margaret, with her northern auxiliaries, and some succours from France, ventured once more to take the field, and to make an inroad into England. But she was able to penetrate no further than Hoxham: there she was attacked by lord Montacute, brother to the earl of Warwick, and warden of the marches, who totally routed her motley army. All who were spared in the field suffered on the scaffold.

The fate of the unfortunate royal family, after this overthrow, was, it is said, equally singular and affecting. Margaret fled with her son into a forest, where she endeavoured to conceal herself, and was beset during the darkness of the night by robbers, who de-

spoiled her of her jewels, and treated her with the utmost indignity. She made her escape, however, while they were quarrelling about the booty; and wandered some time with her son in the most unfrequented thickets, spent with hunger and fatigue, and ready to sink beneath the load of terror and affliction.

In this wretched condition she was met by a robber, with his sword naked in his hand; and seeing no means of escape, she suddenly embraced the bold resolution of trusting entirely to his faith and generosity. "Approach, my friend," cried she, presenting to him the young prince, to you I commit the safety of your king's son." Struck with the singularity of the event, and charmed with the confidence reposed in him, the robber became her protector. By his favour she dwelt concealed in the forest, till she found an opportunity to make her escape into Flanders; whence she passed to her father in France, where she lived several years in privacy and retirement. Henry was less fortunate in finding the means of escape: he lay concealed during 12 months in Lancashire; but was at last detected, delivered up to Edward, and thrown into the tower.

This young king, Edward IV. while in the height of dissipation, had resolved to marry, in order to secure his throne by issue, as well as by alliances: and he had cast his eyes on Bona of Savoy, sister to the queen of France. The negotiation was committed to the earl of Warwick, who went over to Paris, where the princess then resided: his proposals were accepted, and the treaty was fully concluded. Nothing remained but the ratification of the terms agreed on, and the bringing of the princess over to England. Meanwhile the charms of lady Elizabeth Gray, one of the finest and most accomplished women of her time, had inflamed the heart of Edward. Her husband, sir John Gray of Groby, had been slain in the second battle of St. Alban's, fighting on the side of Lancaster, and his estate confiscated; and when the king came accidentally, after a hunting party, to the house of her father, sir Richard Woodville, to whom she had retired, she threw herself at his feet, and entreated him to take pity on her impoverished and helpless children. The sight of so much beauty in distress strongly affected the susceptible Edward. Love insensibly stole into his heart, under the disguise of compassion. He raised the fair supplicant from the ground with assurances of favour; and as his passion was increased by the winning conversation of Elizabeth, he soon found himself reduced to that posture and stile of solicitation, which had been so lately hers. But all his solicitations were in vain, she obstinately refused to gratify his passion; and the young and gallant monarch found for once a virtue which his fondest assiduities could not bend. Inflamed by opposition, and filled with veneration for such honourable sentiments, Edward lost sight of all but love. He offered to share his throne, as well as his heart, with the woman whose beauty of person, and dignity of character, seemed so well to entitle her to both: and the marriage was privately celebrated at her father's seat in Northamptonshire.

Warwick, who was still at Paris, no sooner received intelligence of the king's marriage, than he returned to England, inflamed with rage and indignation, at being employed in a deceitful treaty, and kept a stranger to the intentions of the prince, who owed every thing to his friendship. The king was sensible that Warwick had been ill used;

but his pride, or false shame prevented him from making an apology: and that nobleman was permitted to depart the court in the same hot temper that he came. The advancement of the queen's relations into offices of power and trust, to the exclusion of those of Warwick, whom she regarded as her mortal enemy, heightened his discontent, and made him to resolve to ruin the king he had made. In order to effect his purpose, Warwick drew over to his interest the duke of Clarence, the king's second brother, by offering him in marriage his eldest daughter, and co-heiress of his immense fortune. Many of the antient nobility envied the sudden growth of the Woodvilles. They associated themselves with Warwick; who, finding his own name insufficient, and being chased to France, after some ineffectual struggles, entered into a league with queen Margaret, his inveterate enemy.

On his return to England, he was joined by the whole body of Lancastrians. Both parties now prepared for a general decision by arms; and a decisive action was every moment expected, when Edward, finding himself betrayed by the marquis of Montague, and suspicious of his other commanders, suddenly abandoned his army, and fled to Holland. Henry VI. was taken from his confinement in the tower, and placed once more upon the English throne; and a parliament, called under the influence of Warwick, declared Edward IV. an usurper.

But this revolution was only the effect of the giddiness of faction. Warwick was no sooner at the helm of government, than his popularity began to decline, though he appears to have been guilty of no unpopular act; so fugitive a thing is public favour! The young king was emboldened to return. He landed at Ravenspur, as Henry IV. had formerly done upon a like occasion; and although he brought with him only 2000 men, he soon found himself in a condition to face the earl of Warwick, who had taken post at Barnet. The city of London opened its gates to Edward; who thus became at once master of his capital, and of the person of his rival Henry, doomed to be the perpetual sport of fortune. The arrival of queen Margaret, whose presence would have been of infinite service to her party, was every day expected. In the mean time the duke of Clarence, Warwick's son-in-law, deserted to the king, and carried along with him a body of 12,000 men. But Warwick was now too far advanced to retreat; and as he rejected with disdain all terms of peace offered him by Edward and Clarence, he was obliged to hazard a general engagement. The battle was fought with great obstinacy on both sides. The two armies, in imitation of their leaders, displayed uncommon acts of valour, and the contest for victory remained long undecided; but an accident threw at last the balance on the side of the Yorkists. Edward's cognizance was a sun, Warwick's a star with rays; and the mistiness of the morning rendering it difficult to distinguish them, a body of the Lancastrians were attacked by their friends, and driven off the field. Warwick did all that experience, conduct, or valour could suggest, to retrieve the mistake, but in vain. He had engaged on foot that day, contrary to his usual practice, in order to shew his troops, that he was resolved to share every danger with them; and now sensible that all was lost, unless a reverse of fortune could be wrought by some extraordinary effort, he rushed into the thickest of the engagement, and fell, covered with a multitude of wounds. His brother, the marquis of Montague, underwent

the same fate; and as Edward had issued orders to give no quarter, a great and undistinguished slaughter was made in the pursuit.

Queen Margaret and her son, prince Edward, now about 18 years of age, landed from France the same day on which that decisive battle was fought. She had hitherto sustained the shocks of fortune with surprising fortitude; but when she received intelligence of her husband's captivity, and of the defeat and death of the earl of Warwick, her courage failed her, and she took sanctuary in the abbey of Beaulieu, in Hampshire. Encouraged, however, by the appearance of Tudor, earl of Pembroke, and several other noblemen, who exhorted her still to hope for success, she resumed her former spirit, and determined to assert to the last her claim to the crown of England. She accordingly put herself once more at the head of the army, which increased in every day's march, and advanced through the counties of Devon, Somerset, and Gloucester. But the ardent and expeditious Edward overtook her at Tewksbury, on the banks of the Severn, where the Lancastrians were totally routed. Margaret and her son were taken prisoners, and brought to the king, who asked the prince in an imperious tone, how he dared to invade his dominions. "I came hither," replied the undaunted youth, more mindful of his high birth than his present fortune, "to revenge my father's wrongs, and rescue my just inheritance out of your hands." Incensed at his freedom, instead of admiring the boldness of his spirit, the ungenerous Edward barbarously struck him on the face with his gauntlet, and the dukes of Clarence and Gloucester, lord Hastings, and sir Thomas Gray, taking this blow as a signal for further violence, hurried the prince aside, and instantly dispatched him with their daggers. Margaret was thrown into the tower, where her husband Henry had just expired. Whether he died a natural or violent death is uncertain; though it is generally believed that the duke of Gloucester killed him with his own hand.

The hopes of the house of Lancaster being thus extinguished, Edward projected an invasion into France, in order to recover the dominions lost under his predecessor. Having received a considerable supply, he passed over to Calais, with an army of 1500 men at arms, and 15,000 archers. Though he was deserted by his ally, the duke of Burgundy, his presence so alarmed the French king, as to induce him to propose an accommodation.

A truce was concluded, on terms by no means honourable to France; Lewis stipulated to pay the king of England immediately 75,000 crowns, in order to defray the expence of his armament, on condition that he should quietly withdraw his troops; and 50,000 crowns a-year during their joint lives.

This treaty reflected little honour on either of the monarchs. It discovered the imprudence of the one, and the pusillanimity of the other. But as Lewis made interest the sole test of his honour, he had over-reached Edward, by sending him out of France on such easy terms. The most honourable article on the side of Lewis was the stipulation for the liberty of queen Margaret, who was still detained in custody by Edward. Lewis paid 50,000 crowns for her ransom; and this princess, who, in active scenes of life, had experienced so remarkably the vicissitudes of fortune, passed the remainder of her days in tranquillity and privacy. Margaret seems neither to have possessed the virtues

or been subject to the weaknesses of her sex; and she was as much tainted with the ferocity, as endowed with the courage of the age in which she lived.

The dark and unrelenting disposition of Richard, duke of Gloucester, the future scourge of England, began more particularly to discover itself after Edward's return from France. The duke of Clarence, by all his services in deserting Warwick, had never been able to regain the king's friendship, which he had forfeited by his former confederacy with that nobleman. He had also the misfortune to offend his brother Gloucester, who secretly conspired his ruin. Several of his friends were accused and executed, under frivolous pretences, in hopes that his resentment would betray him into measures which might furnish matter for an impeachment. He fell into the snare. Instead of securing his own life against the present danger by silence and reserve, he was open and loud in asserting the innocence of his friends, and in exclaiming against the iniquity of their prosecutors. The king ordered him to be committed to the tower; and he was sentenced to die by the house of Peers, the supreme tribunal of the nation, for arraigning public justice, by maintaining the innocence of men, who had been condemned in courts of judicature. The only favour which the king granted him was the choice of his death, and he is said to have been privately drowned in a butt of Malmsey; a whimsical choice, which leads us to suppose that he was passionately fond of that liquor.

The remaining part of Edward's reign was distinguished by no remarkable event. He sunk again into indolence and pleasure, from which he was once more roused by the prospect of a French war. While making preparations with that view, he was seized with a violent distemper, of which he died, in the 42d year of his age.

He was a prince of more vigour than prudence; and consequently less fitted to prevent ills by wise precaution, than to remedy them after they took place. As a man, he possessed many accomplishments: his virtues were few, his vices a numerous catalogue.

Edward IV. left two sons; the prince of Wales, now Edward V. in his thirteenth year, and Richard, duke of York, in his ninth. The duke of Gloucester, their uncle, whose sanguinary disposition we have had occasion to notice, was appointed regent by Edward's desire, and chosen protector by his own artifices. He had already got the two young princes into his possession, contrary to the inclination of their mother, who seemed struck with a kind of presage of their future fate; and his eye was fixed upon the throne, though not only the sons of Edward, but those of the duke of Clarence stood between him and it.

An attempt to exclude or destroy so many persons, possessed of a preferable right, may seem equally imprudent and impracticable. But a man like Gloucester, who had abandoned all principles of honour and humanity, was soon carried by his predominant passion beyond the reach of fear or precaution: and having so far succeeded in his views, he no longer hesitated in removing the other obstructions in his way. He ordered earl Rivers, the queen's brother, sir Richard Gray, her son by her former husband, and sir Thomas Vaughan, who possessed a considerable place in the young king's household, and was firmly attached to his person, to be thrown into prison, and executed without any form of trial. His next step was to draw into his views the duke of Buck-

ingham and lord Hastings. With the first he succeeded; but the last remained firm to his allegiance to the children of Edward, who had ever honoured him with his friendship. His death was therefore resolved upon; and for that purpose a council was summoned in the tower, whither that nobleman, suspecting no harm, repaired without hesitation. Gloucester, on taking his place at the council board, appeared in the easiest and most facetious humour imaginable; but making a pretence soon after to retire, as if called away by urgent business, he returned, knitting his brows, grinding his teeth, and exhibiting, by frequent change of countenance, symptoms of inward perturbation. A general silence ensued: every one dreading some terrible catastrophe, and all gazing with looks of doubt and anxiety upon each other. Richard at last relieved them from their awful suspense. "What punishment do they deserve," said he, "who have conspired against my life?" "The death of traitors," replied lord Hastings. "These traitors," cried Richard, "are the sorceress, my brother's wife, and that witch Shore, his mistress, with others, their associates. See to what a condition they have reduced me by their spells and incantations!" laying bare his arm, all shrivelled and decayed. The amazement of the council increased, it being well known this infirmity had attended him from his childhood; and lord Hastings, who, since Edward's death, was engaged in an intrigue with Jane Shore, was naturally alarmed at such an accusation. "Certainly, my lord," said he, with some hesitation, "if they are guilty of such crimes, they deserve punishment." "And do you," exclaimed Richard, "reply to me with your ifs? You know their guilt: you are yourself a traitor, and the chief abettor of the witch Shore; and I swear by St. Paul, that I will not dine until your head is brought me!" He struck the table with his hand, armed men rushed in at the signal: Hastings was seized; hurried away; and instantly beheaded on a log of wood, which accidentally lay in the court-yard of the tower.

Richard having thus got rid of the man he most feared, and of all who were most likely to oppose his views, ordered lord Stanley, the archbishop of York, the bishop of Ely, and other councellors of whom he was suspicious, to be committed prisoners to the tower; and in order to carry on the farce of accusation, he commanded the goods of Jane Shore to be seized, and summoned her to answer before the council for sorcery and witchcraft. But as beauty was her only witchcraft, and conversation her most dangerous spell, no proofs were produced against her which could be received, even in that ignorant age. Her persecution, however, did not end here. Though famed for virtue, she had proved unable to resist temptation, and had left her husband, a goldsmith, in Lombard street, to live with Edward, who solicited her favours. But while seduced from her fidelity by this gay and amorous monarch, she still made herself respectable by her other virtues. She never sold her influence. Her good offices, the genuine dictates of her heart, waited not the solicitation of presents, or the hopes of reciprocal benefit; to protect the oppressed, and relieve the indigent, were her highest pleasures. Yet all her amiable qualities could not save her from the bitterness of shame, cruelly imposed upon her by a barbarous tyrant. Richard ordered her to be tried in the spiritual court for adultery. The charge was too notorious to be denied. She pleaded guilty, and was condemned to do public penance in a white sheet at St. Paul's after walk-

ing barefooted through the city. Her future life was long and wretched. She experienced in old age and poverty, the ingratitude of those courtiers whom she had raised into favour. Not one, of all the multitudes she had obliged, had the humanity to bring her consolation or relief. Her frailties as a woman, amid a court inured to the most atrocious crimes, were thought sufficient to justify all violations of friendship towards her, and all neglect of former obligations; and she was permitted to languish out her days in solitude and want.

So many acts of violence, exercised against all the nearest connections of the late king, prognosticated the severest fate to his defenceless children; and after the murder of Hastings, Richard no longer made a secret of his intention to usurp the crown. As a colour to his pretensions, he not only maintained that his two nephews were illegitimate, but also his two brothers, Edward IV. and the duke of Clarence; that his mother had admitted different lovers to her bed, who were the fathers of these children; that their resemblance to those gallants was a sufficient proof of their spurious birth; and that he alone, of all her sons, as appeared by his features, was the true offspring of the duke of York.

The place chosen for promulgating this foul and impudent assertion was the pulpit, before a large congregation, and in Richard's presence. Dr. Shaw, a sycophant, entirely at his devotion, was appointed to preach at St. Paul's who enlarged on every circumstance that could discredit the birth of Edward IV. the duke of Clarence, and of all their children. He then broke out into a panegyric on the duke of Gloucester, exclaiming, "It is he who carries in his face, in his soul, the image of virtue, and the marks of a true descent!" And it was expected, as soon as the doctor had pronounced these words, that the audience would cry out, "God save king Richard!" a salutation which would immediately have been laid hold of as a popular consent, and interpreted to be the voice of the nation. But the audience kept a profound silence, and disappointed both the protector and his preacher Richard, however, had gone too far to recede from his criminal and ambitious purpose. Another place was chosen for a popular harangue: a place where a popular speaker never fails to persuade, and where a voice may be obtained for any measure, however atrocious or absurd. The citizens of London, with the rabble at their heels, were assembled in Guildhall, where the duke of Buckingham addressed them in an elegant harangue, setting forth the title and virtues of the protector, and "God save king Richard!" was at last returned by the mob The sentiments of the nation were now thought sufficiently declared; the voice of the people was the voice of God! Richard was prevailed upon, though with seeming reluctance, to accept of the crown; and he thenceforth acted as legitimate and lawful sovereign.

This ridiculous farce, as is said by most historians, was followed by a scene truly tragical; the murder of the two young princes. Richard gave orders to sir Robert Brakenbury, constable of the tower, to put his nephews to death; but that gentleman refused to bear any part in the infamous office. The usurper then sent for sir James Tyrrell, who promised obedience, and the government of the tower was given him for one night. He chose three associates, whom he employed to execute his barbarous

commission, and conducted them, about midnight, to the door of the chamber where the princes were lodged. They were in bed, and fallen into a profound sleep. The ruffians suffocated them with bolsters and pillows, and afterwards shewed their naked bodies to Tyrrell, who ordered them to be buried at the foot of the stair-case, under a heap of stones. These circumstances were confessed by the perpetrators, in the following reign.

It is necessary to admonish the reader, that the accounts here given concerning the conduct of Richard have been called in question by some modern writers. They not only exculpate him from the charge of the murder of his nephews, but assert that the marriage of Edward IV. with Elizabeth Woodville was illegal, by reason of a prior contract, and that therefore Richard, in laying claim to the crown, only vindicated his hereditary right.

Richard having thus extirpated all whom he feared might disturb his government, endeavoured to gain by favours those whom he thought could give stability to his throne. Several noblemen received new honours; and lord Stanley was set at liberty, and made steward of the household.

But Richard's danger arose from a quarter whence he least expected it. The duke of Buckingham did not think himself sufficiently rewarded for his service in promoting the usurpation: he observed the general detestation of Richard; and, by the advice of Morton, bishop of Ely, he turned his eye towards the young earl of Richmond, now an exile in Brittany, as the only person capable of freeing the nation from the tyranny under which it groaned.

Henry, earl of Richmond, was grandson of sir Owen Tudor and Catharine of France, relict of Henry V. By his mother he was descended from John of Gaunt, duke of Lancaster, son of Edward III. and was the only remaining branch of that fam ly, which had so long contended for the crown. In order to strengthen his interest, a match was concerted between him and Elizabeth, eldest daughter of Edward IV. Money was sent over to him, for the purpose of levying foreign troops; and the queen-dowager promised to join him on his first appearance, with all the friends and partizans of her family.

But so extensive a conspiracy, though laid on the solid foundations of good sense and sound policy, could not escape the jealous and vigilant eye of Richard.

He soon received intelligence that his enemies, headed by the duke of Buckingham, were forming some designs against him. The duke, unable to resist the force of Richard was obliged to seek safety in retreat; he was discovered, condemned, and executed, and the other conspirators, who had taken arms in different parts of the kingdom, when informed of this misfortune, despaired of success, and immediately separated themselves. Mean time the earl of Richmond appeared on the coast of England, with a body of 5000 men; but hearing of the fate of Buckingham, and the dispersion of his friends, he returned to the coast of Brittany.

Richard, thus triumphant in every quarter, and fortified by an unsuccessful attempt to dethrone him, ventured at last to summon a parliament; a measure which his mul-

tiplied crimes, and flagrant usurpation, had hitherto induced him to decline. The parliament had no choice left but to recognize his authority, and acknowledge his right to the crown. His son Edward, a youth of 12 years of age, was created prince of Wales: and the king passed some popular laws, in order to reconcile the nation to his government.*

All Richard's other measures tended to the same object. His queen being now dead, he proposed, by means of a papal dispensation, to marry the princess Elizabeth, the true heiress of the crown, and intended for the earl of Richmond, if his enterprise had succeeded. And, strange as it may sound in civilized ears, the queen-dowager neither scrupled this alliance, which was very unusual in England, and regarded as incestuous, nor felt any horror at the thought of marrying her daughter to the murderer of her three sons, and of her brother.

But the earl of Richmond, alarmed at an alliance which must prove fatal to all his hopes, and encouraged by the English exiles, resolved upon a new invasion. All men of probity and honour, he was assured, were desirous to prevent the sceptre from being any longer polluted by that bloody and faithless hand which held it. In consequence of these representations, he set sail from Harfleur, in Normandy, with a retinue of about 2000 men, and landed at Milford haven, in Wales. The Welch, who considered him as their countryman, flocked to his standard; and his cause immediately wore a favourable aspect.

Richard, who knew not in what quarter he might expect the invader, had taken post at Nottingham, in the centre of the kingdom, and having given commissions to different persons in the several counties, whom he impowered to oppose his enemy, he proposed in person to haste, on the first alarm, to the place most exposed to danger. The Welch governors had already deserted to Henry. But the danger to which Richard was chiefly exposed, proceeded not so much from the zeal of his open enemies, as from the infidelity of his pretended friends. Scarce any nobleman was sincerely attached to his cause, except the duke of Norfolk; and some, who had feigned the greatest loyalty, were only watching for an opportunity to betray and abandon him. Among these was lord Stanley; who raised a numerous body of his friends and retainers in Cheshire and Lancashire, but without openly declaring himself, his son being in the tyrant's power. And although Henry had received secret assurances of Stanley's friendly intentions, the armies on both sides knew not what to infer from his equivocal behaviour. When they met at Bosworth, near Leicester, Henry's army consisted of 6000 men, Richard's of double that number; and he hastened to decide by arms the quarrel with his competitor.

[S]on after the battle began, lord Stanley appeared in the field, and declared for the earl of Richmond. This measure had a proportional effect upon both armies: it inspired unusual courage in Henry's soldiers; it threw Richard's into dismay and confusion. The intrepid tyrant, now sensible of his desperate situation, cast his eye across the field, and descrying his rival at no great distance, attempted to decide the victory by a blow. He killed with his own hand sir William Brandon, standard-bearer to the earl; he dismounted sir John Cheney; and he was within reach of Henry himself, who de-

clined not the combat, when sir William Stanley broke in between them, and surrounded Richard with his troops. Though overwhelmed by numbers, he still maintained the combat; and at last sunk amid heaps of slain, who had fallen by his arm.

This battle was entirely decisive: the king not only being slain, but the whole royal army totally routed and dispersed. The victorious troops, in a transport of joy, bestowed on their general the appellation of king; and "Long live Henry VII!" resounded from all quarters, and was continued with repeated acclamations. In order to give some kind of form to this military election, the ornamental crown, which Richard wore in battle, was placed upon Henry's head: his title was confirmed by the parliament; and his marriage with the princess Elizabeth, which took place soon after, united the jarring claims of the houses of York and Lancaster. Thus ended the race of the Plantagenets, who had sat upwards of 300 years upon the throne of England, and thus the civil wars, which had so long desolated the kingdom.

Though the period, the events of which we have now recorded, is justly considered as darker than either of the two preceding, yet in it the English language began to be more cultivated, and authors of considerable eminence were not ashamed to publish their productions in their mother tongue. Among these, the highest rank is due to Geoffry Chaucer, the father of English poetry, who flourished in the reigns of Edward III. Richard II. and Henry IV. He added to a lively genius and a learned education a thorough knowledge of life and manners: he was perfectly a man of the world; had frequently visited France and Italy, and sometimes under the advantage of a public character: he had studied the Italian and Provençal poets, was intimately acquainted with both languages, and attempted successfully all the kinds of poetry then in use.

Chaucer, however, had many disadvantages to struggle with, from which his cotemporaries were in a great measure free. William the Conqueror had attempted to extirpate the English tongue. The Norman language was ordered to be used in all public writings, and taught in all public schools. It was also the dialect of the court. That badge of slavery was only abolished by Edward III. It had continued almost 300 years. Chaucer had therefore to create, or at least to form a new dialect. This circumstance ought always to be attended to in contemplating the writings of our venerable bard; as it alone can account for that prodigious disparity, observable, after all his diligence, between the progress of English manners, and of the English language. Had things continued to proceed in their natural order, Chaucer's style would now have been nearly as intelligible as that of Shakespeare.

But this dawn of English literature and English refinement was deeply obscured by the civil wars that followed, and which continued, with little interruption, till the accession of Henry VII.

Polite literature was soon after cultivated in Scotland, by the unfortunate monarch James I.; but Ireland still remained in too distracted a state to permit that civilization should there make any extensive progress.

CHAPTER IX.

GREAT BRITAIN AND IRELAND——*From the accession of Henry VII. to the death of Henry VIII.*

HENRY VII. the first prince of the house of Tudor, ascended the throne of England, as we have already seen, in consequence of the victory at Bosworth, and the death of Richard III. His title was confirmed by the parliament: his merit was known; and his marriage with the princess Elizabeth, eldest daughter of Edward IV. united the jarring claims of the houses of York and Lancaster, and seemed to give universal satisfaction to the nation: he had therefore every reason to promise himself peace and security.

But Henry, although in many respects a prudent and politic prince, had unhappily imbibed a violent antipathy against the adherents of the house of York, which no time or experience was ever able to efface. Instead of embracing the present favourable opportunity of abolishing party distinctions, by bestowing his smiles indiscriminately on the friends of both families, he carried to the throne all the partialities that belong to the head of a faction. To exalt the Lancastrian party, and depress the retainers of the house of York, were still the favourite ideas of his mind. The house of York was generally beloved by the nation; and for that very reason it became every day more the object of Henry's hatred and aversion; hence his amiable consort was treated with contempt, his government grew unpopular, and his reign was filled with plots and insurrections.

The first insurrection was headed by the viscount Lovel, sir Humphry Stafford, and Thomas his brother, who had all fought in the cause of Richard, and against whom, among many others, the parliament, at Henry's instigation, had passed an act of attainder; though it is not conceivable how men could be guilty of treason for supporting the king in his possessions against the earl of Richmond, to whom they had never sworn allegiance, and who had not even assumed the title of king. Enraged at such an instance of severity, they left their sanctuary at Colchester, and flew to arms. The king sent the duke of Bedford against them with a chosen body of troops, and a promise of pardon to such as would return to their duty. Lovel, afraid of the fidelity of his followers, privately withdrew, and fled to Flanders. His army submitted to the king's clemency. The other rebels, who had undertaken the siege of Worcester, immediately dispersed themselves. The two Staffords took sanctuary in the church of Colnham, a village near Abingdon; but it was found that that church had not the privilege of protecting rebels, they were taken thence: the elder was executed at Tyburn, the younger obtained a pardon.

This rebellion was immediately followed by another, of a more dangerous nature, as it laid deeper hold of the public discontents. Henry's jealousy confined in the tower

Edward Plantagenet, earl of Warwick, son of the duke of Clarence. This unhappy prince had been formerly detained, in a like confinement, at Sheriff Hutton in Yorkshire, by the jealousy of his uncle Richard. A comparison was drawn between Henry and that tyrant, and as the tower was the place where Edward's children were supposed to have been murdered, a fate not more gentle was feared for Warwick. While the compassion of the nation was thus turned towards youth and innocence, exposed to oppression, a report was spread, that Warwick had made his escape. A general joy communicated itself from face to face, and many seemed desirous to join him. Such a favourable opportunity was not neglected by the enemies of Henry's government. One Richard Simon, a priest, of Oxford, and a zealous partizan of the house of York, attempted to gratify the popular wish, by holding up an impostor to the nation. For this purpose he cast his eyes upon Lambert Simnel, a baker's son, who being endowed with understanding beyond his years, and address above his condition, seemed well calculated to personate a prince of royal extraction. Simnel was taught to assume the name and character of earl of Warwick: and he soon appeared so perfect in many private particulars relative to that unfortunate prince, to the court of king Edward, and the royal family, that the queen-dowager was supposed to have given him a lesson. But how apt soever father Simon might find his pupil, or whatever means he might take to procure him instructions, he was sensible that the imposture would not bear a close inspection; he therefore determined to make trial of it first in Ireland.

That island was zealously attached to the house of York, and bore an affectionate regard to the memory of Clarence, Warwick's father, who had resided there as lord lieutenant: and Henry had been so impolitic as to allow it to remain in the same condition in which he found it. All the officers appointed by his predecessor still retained their authority; so that Simnel no sooner presented himself to Thomas, earl of Kildare, the deputy, and claimed his protection as the unfortunate Warwick, than that credulous nobleman believed his tale, and embraced his cause. Other noblemen, to whom he communicated the fiction, were no less sanguine in their zeal and belief; the story diffused itself among the people of inferior condition, naturally more violent and credulous, who listened to it with still greater ardour; and the inhabitants of Dublin, with one consent, tendered their allegiance to Simnel, as the true Plantagenet. They lodged the pretended prince in the castle of Dublin, crowned him with a diadem taken from a statue of the Virgin, and publicly proclaimed him king, under the appellation of Edward VI. The whole island followed the example of the capital: not a sword was drawn in favour of Henry. The king was a good deal alarmed, when he received intelligence of this revolt. Though determined always to face his enemies, he scrupled at present to leave England, where he suspected the conspiracy had been framed, and where he knew many persons of condition, and the people in general, were disposed to give it countenance. He therefore held frequent consultations with his ministers and counsellors relative to the measures most proper for the safety of his kingdom, and the means of discovering the origin of the imposture. In consequence of these deliberations, the queen-dowager was taken into custody, and confined in the nunnery of Bermondsey for life. Unwilling, however, to accuse so near a relation of a conspiracy against him, the king alleg-

ed, that she was thus punished for yielding up the princess Elizabeth, now queen, to the tyrant Richard, after she had been secretly promised to him. Henry's next step was no less deliberate. He ordered Warwick to be taken from the tower, led in procession through the streets of London, conducted to St. Paul's, and there exposed to the view of the whole people. This expedient had its full effect in England, but in Ireland the people still persisted in their revolt: and Henry had soon reason to apprehend, that the attempt to disturb his government was not laid on such slight foundations, as the means employed seemed to indicate.

John, earl of Lincoln, son of John de la Pole, duke of Suffolk, and of Elizabeth, eldest sister of Edward IV. was engaged to take part in the conspiracy. This nobleman, alarmed at the king's jealousy of all eminent persons of the York party, and more especially at his rigour towards Warwick, had retired into Flanders, where lord Lovel was arrived a little before him. He resided some time in the court of his aunt, the duchess of Burgundy, by whom he had been invited over. Margaret's bosom flamed with indignation against the oppressor of her family: and she determined to make him repent of his unreasonable enmity. After consulting with Lincoln and Lovel, she therefore hired a body of 2000 veteran Germans, under the command of Martin Swart, a brave and experienced officer, and sent them over along with these noblemen, to join Simnel in Ireland. The courage of the Irish was much raised by this accession of military force, and the countenance of persons of such high rank; so that they formed the bold resolution of invading England, where they believed the spirit of disaffection to be no less prevalent than in Ireland. They accordingly landed at Foudrey, in Lancashire, and were joined by sir Thomas Broughton, a man of great interest in that county; but the people in general, averse against an association with Irish and German invaders, convinced of Simnel's imposture, and kept in awe by the king's reputation in arms, either remained in tranquillity, or gave assistance to the royal army, which was advancing towards the enemy. The earl of Lincoln, therefore, who commanded the rebels, finding no hopes but in victory, determined to bring the matter to a speedy decision; and Henry, emboldened by his native courage, no less than by the superiority of his numbers, intrepidly advanced to the combat. The two armies met at Stoke, in the county of Nottingham, where a bloody and obstinate battle was fought. All the leaders of the rebels were resolved to conquer or die, and they inspired their troops with the like resolution. They were at last, however, obliged to give way: and if Henry's victory was purchased with loss, it was entirely decisive. Lincoln, Broughton, and Swart, perished in the field of battle, together with 4000 of their followers. Lovel is supposed to have undergone the same fate, as he was never more heard of. Simnel and his tutor Simon were taken prisoners. Simon was committed to close custody for life; and his sacred character only could have saved him from a severer fate. Simnel was too contemptible either to excite apprehension or resentment in Henry: he was therefore pardoned, and employed as a scullion in the king's kitchen; from which condition he was afterwards advanced to the rank of one of his majesty's falconers.

In the year 1493 the tranquillity of Henry was disturbed by a young man, who has been generally distinguished by the name of Perkin Warbec; he is said to have been the son

of a Jew of Tournay, to have been born in England, and after passing through a variety of adventures, to have been recommended to the duchess of Burgundy, sister of Edward IV. as a proper person to gratify her revenge, by assuming the name and character of one of the murdered princes.

The accounts of his birth, education, and early adventures, are so extremely contradictory and unsatisfactory, that many have preferred the opinion that he was the person he pretended to be—Richard, duke of York, and now, by hereditary right, the fourth of that name king of England. Whether he was only a pretender, or really that exiled and unfortunate prince, is a question, which will probably be never decided; we may, however, safely affirm, that neither his imposture, nor his personal identity, were ever proved by such arguments as enforce conviction. His first public appearance was in Ireland, where he drew to himself many partizans. Having received an invitation from Charles VIII. he visited the court of France, and was there received with every mark of respect. From France, the tide of admiration and credulity diffused itself into England: and sir George Nevil, sir John Taylor, and above 100 gentlemen more, went over to Paris, in order to offer their services to the supposed duke of York, and to share his fortunes. He afterwards retired to the duchess of Burgundy, who at last professed herself, and evinced that he was her nephew, assigned him an equipage suitable to his pretended birth, appointed him a guard, engaged every one to pay court to him, and on all occasions honoured him with the appellation of The White Rose of England.

The impostor's story was immediately published, for the satisfaction of the nation; and as soon as Henry's projects were matured, he made the conspirators feel the weight of his resentment. Almost in the same instant, he arrested lord Fitzwaltar, sir Simon Mountford, and sir Thomas Thwaites, who were convicted of high treason, for promising to aid Perkin, and presently executed. Sir William Stanley, the lord high chamberlain, was also arrested; but greater and more solemn preparations were thought necessary for the trial of a man, whose authority in the nation, and whose domestic intimacy with the king, as well as his former services, seemed to secure him against any accusation or punishment.

Henry, however, was determined to take vengeance on all his enemies. He therefore won over sir Robert Clifford, Perkin's particular confidant, who, returning to England, on a promise of pardon, accused Stanley as his chief abettor; and after six weeks delay, which was interposed, in order to shew the king's lenity and coolness, the chamberlain was brought to his trial, condemned, and beheaded.

The fate of Stanley made a great impression on the minds of the people, and struck Perkin's adherents with the deepest dismay; as they found, from Clifford's desertion, that all their secrets were betrayed. The jealous and severe temper of the king kept men in awe, and quelled not only the movements of sedition, but the very murmurs of faction. A general distrust took place; all mutual confidence was destroyed, even between particular friends.

Henry, in the mean time, elated with success, and little anxious of dispelling those terrors, or gaining the affections of the nation, gave every day more and more

rein to his rapacious temper, and employed the arts of perverted law and justice, in order to extort fines and compositions from his subjects. His government was in itself highly oppressive; but it was so much the less burdensome, as he took care, like Lewis XI. to restrain the tyranny of the nobles, and permitted no one to be guilty of injustice or oppression but himself.

Perkin, now finding his correspondence with the nobility cut off, by Henry's vigilance and severity, and the king's authority daily gaining ground with the people, resolved to attempt something which might revive the drooping hopes of his party. With this view, he gathered together a band of outlaws, pirates, robbers, and necessitous persons, of all nations, with whom he put to sea, and appeared off the coast of Kent; but finding the inhabitants determined to oppose him, he returned to Flanders, and afterwards made a descent upon Ireland.

The affairs of Ireland, however, were now in so good a posture, that he there met with little success, and being tired of the savage life he was obliged to lead, while skulking among the wild natives, he bent his course towards Scotland, and presented himself to James IV. who then reigned in that kingdom. Perkin had been previously recommended to this prince by the king of France; and the insinuating address and plausible behaviour of the youth himself, seem further to have gained him credit with James, whom years had not yet taught distrust or caution, and who carried his confidence so far, as to give him in marriage the lady Catherine Gordon, daughter of the earl of Huntley, a young lady eminent both for beauty and virtue.

The jealousy which then subsisted between the courts of England and Scotland was a new recommendation to Perkin; so that James, who had resolved to make an inroad into England, attended by some of his borderers, carried the impostor along with him, in hopes that the appearance of the pretended prince might raise an insurrection in the northern counties. But in this expectation he found himself deceived. Perkin's pretensions were now become stale, even in the eyes of the populace: no Englishman of any condition joined him. James, after repeated incursions, attended with various success, therefore, found it necessary to conclude a truce with Henry, Perkin being privately ordered to depart the kingdom.

Ireland once more afforded a retreat to the impostor. There he hid himself for some time in the wilds and fastnesses: but impatient of a condition which was both disagreeable and dangerous, he held a consultation with his followers, Horne, Skelton, and Astley, three broken tradesmen, and, by their advice, resolved to try the affections of the Cornish malcontents, who had lately risen in rebellion, on account of an oppressive tax, and whose mutinous dispositions still subsisted, notwithstanding the lenity that had been shewn them No sooner, therefore, did the pretended prince appear at Bodmin, in Cornwal, than the populace, to the number of 3000, flocked to his standard; and Perkin, elated with this appearance of success, took on him, for the first time, the appellation of Richard IV. king of England. That the expectations of his followers might not be suffered to languish, he presented himself before Exeter; and by many fair, though fruitless promises, invited that city to join him. The inhabitants shut their gates against him, and he laid siege to the place.

Henry was happy to hear that the impostor had landed in England, and prepared himself with alacrity to attack him; for, as he usually said, he desired only to see his enemies. Perkin, informed of the king's preparations, immediately raised the siege of Exeter; although his followers now amounted to the number of 7000, and seemed still resolute to maintain his cause, he himself despaired of success, and secretly withdrew to the sanctuary of Beaulieu, in the New Forest. The Cornish rebels submitted to the king's mercy, and found it was not yet exhausted in their behalf; a few of their chiefs excepted, they were dismissed with impunity. Henry was more at a loss how to proceed with regard to Perkin himself. Some counselled him to make the privileges of the church yield to reasons of state; to drag the impostor from the sanctury, and inflict on him the punishment due to his temerity. But Henry did not think the evil so dangerous as to require such a violent remedy. He therefore employed some sagacious persons to persuade Perkin to deliver himself into the king's hands, under promise of Pardon. He did so; and Henry conducted him in a kind of mock triumph to London.

But although the impostor's life was granted him he was still detained in custody; and having broke from his keepers, he was afterwards confined in the tower, where his habits of restless intrigue and enterprise followed him. He found means to open a correspondence with the earl of Warwick, who was confined in the same prison; and he engaged that unfortunate prince to embrace a project for his escape, which Perkin offered to conduct, by murdering the lieutenant of the tower. The conspiracy did not escape the king's vigilance; and Perkin, by this new attempt, after so many enormities, having rendered himself totally unworthy of mercy, was arraigned, condemned, and hanged at Tyburn. Warwick was also brought to trial, found guilty, and executed.

The king's throne was now reckoned perfectly secure, and foreign princes paid him deference and attention.

The prince, whose alliance Henry valued most, was Ferdinand of Spain, whose vigorous and steady policy, always attended with success, had rendered him, in many respects, the most considerable monarch in Europe. And the king of England had at last the satisfaction of completing a marriage, which had been projected and negotiated, during the course of seven years, between Arthur, prince of Wales, and the Infanta Catherine, fourth daughter of Ferdinand and Isabella; he near 16 years of age, she 18. But this marriage proved unprosperous. Prince Arthur died a few months after the celebration of the nuptials; and the king, desirous to continue his alliance with Spain, and also unwilling to restore Catherine's dowry, obliged his second son, Henry, now prince of Wales, to be betrothed to the Infanta. Prince Henry made all the opposition of which a youth only 12 years old could be supposed capable: but as the king persisted in his resolution, the marriage was at last concluded between the parties. It was productive of the most important consequences.

Another marriage was also celebrated the same year, which, in the next age, gave birth to great events: the union of Margaret, Henry's eldest daughter, with James IV. of Scotland. When this alliance was deliberated on in the English council, some objected that England might, in consequence of such marriage, fall under the dominion of Scotland. "No!" replied Henry, "though Scotland should give an heir to the En-

glish crown, that kingdom will only become an accession to England;" and the event has proved the justice of the observation.

The situation of Henry's affairs, both at home and abroad, was now in every respect fortunate. All the efforts of the European princes, as we shall afterwards have occasion to see, were turned to the side of Italy; and the various events which there arose, made Henry's alliance be eagerly courted by each party, yet interested him so little, as never to touch him with concern or anxiety. Uncontrouled, therefore, by apprehension, or opposition, he gave full scope to his natural passion, being increased by age, and encouraged by absolute authority, broke through all restraints of shame or justice.

He had found two ministers, Empson and Dudley, perfectly qualified to second his rapacious and tyrannical inclinations, and to prey upon his defenceless people. These instruments of oppression were both lawyers; the first of mean birth, of brutal manners, and of unrelenting temper; the second better born, better educated, and better bred, but equally unjust, severe, and inflexible. By their knowledge of law, they were qualified to pervert the forms of justice to the oppression of the innocent: and Henry supported them in all their iniquities. The sole purpose of the king and his ministers was to amass money, and bring every one under the lash of their authority.

But while Henry was enriching himself with the spoils of his oppressed people, he did not neglect the political interests of the nation. Philip, archduke of Austria, and his wife Joan, heiress of Castile, being thrown upon the English coast on their passage to Spain; Henry entertained them with a magnificence suitable to his dignity, and at an expence by no means agreeable to his temper. But, notwithstanding so much seeming cordiality, interest in this, as in all things, was the only rule of his conduct. He resolved to draw some advantage from the involuntary visit paid him by his royal guests; and while he seemed only intent on displaying his hospitality, and in furnishing the means of amusement, he concluded a treaty of commerce, highly beneficial to England.

Henry's views did not terminate here; from the interest of the nation, he turned them to his own. Edmund de la Pole, earl of Suffolk, nephew to Edward IV. and brother to the earl of Lincoln, slain at the battle of Stoke, had retired to Flanders in disgust. The king did not neglect the present opportunity of complaining to the archduke of the reception which Suffolk had met with in his dominions. "I really thought," replied Philip, "that your greatness and felicity had set you far above apprehensions from a person of so little consequence: but to give you satisfaction, I shall banish him my state." "I expect that you will carry your complaisance further," said Henry; "I desire to have Suffolk put into my hands, where alone I can depend on his submission and obedience." "That measure," observed Philip, "will reflect dishonour upon you, as well as myself. You will be thought to have used me as a prisoner." "Then," replied Henry, "the matter is settled; I will take upon me that dishonour, and so your honour is safe." Philip found himself under the necessity of complying; but he first exacted a promise from Henry that he would spare Suffolk's life.

Henry survived these transactions about two years, but nothing memorable occurs in the remaining part of his reign. His declining health made him turn his thoughts towards

that future state of existence, which the severities of his government had rendered a very dismal prospect to him. In order to allay the terrors under which he laboured, he endeavoured to procure a reconciliation with heaven, by distributing alms, and founding religious houses. Remorse even seized him at times, for the abuse of his authority by Empson and Dudley, though not to such a degree as to make him stop the rapacious hand of those oppressors, until death, by its nearer approaches, appalled him with new terrors: and then he ordered, by a general clause in his will, that restitution should be made to all those whom he had injured. He died of a consumption, at his favourite palace of Richmond, in the 52d year of his age, and the 23d of his reign; which was, on the whole, fortunate for his people at home, and honourable abroad.

No prince ever ascended the throne of England with more advantages than Henry VIII. His title to the crown was undisputed; his treasury was full; his subjects were in tranquillity; and the vigour and comeliness of his person, his freedom of manners, his love of show, and his dexterity in every manly exercise, rendered his accession highly popular, while his proficiency in literature, and his reputation for talents, made his character respectable. Every thing seemed to prognosticate a happy and prosperous reign.

The first act of Henry's administration confirmed the public hopes; it was the prosecution of Empson and Dudley, the two unfeeling ministers whom his father had employed in his extortions. They insisted, and perhaps justly, that they had acted solely by royal authority; but the jury was so far moved by popular prejudices, as to give a verdict against them; and Henry, at the earnest desire of the people, granted a warrant for their execution.

Having punished the instruments of past oppression, the king's next concern was to fulfil his former engagements. He had been affianced, during his father's life-time, to the Infanta Catharine, his brother's widow, and notwithstanding some scruples on that step, he now agreed that their nuptials should be celebrated. We shall afterwards have occasion to observe the extraordinary effects of this marriage, and of the king's remorse, either real or pretended.

Some princes have been their own ministers, but almost every one has either had a minister or a favourite. Wolsey was both to Henry; being admitted to the youthful monarch's pleasures, he took the lead in every jovial conversation, and promoted, notwithstanding his religious habit, all that frolic and gaiety, which he found to be agreeable to the age and inclinations of the king.

During the intervals of amusement, he introduced business and state affairs, and insinuated those maxims of conduct, which he was desirous his master should pursue. By these means he insensibly acquired that absolute ascendancy over Henry, which distinguished his administration; and the people saw, with concern, every day, new instances of his uncontrouled authority.

The duke of Buckingham, lord high constable of England, the first nobleman in the kingdom, both in family and fortune, having wantonly given disgust to Wolsey, soon found reason to repent his imprudence. He was descended, by a female, from the duke of Gloucester, youngest son of Edward III.; and being infatuated with judicial astro-

logy, he consulted with a Carthusian friar, named Hopkins, who flattered him with hopes of ascending one day the English throne. He had even been so unguarded as to utter some expressions against the king's life. The cardinal made these the grounds of an impeachment; and although Buckingham's threats seem to have proceeded more from indiscretion than deliberate malice, he was brought to trial, condemned, and executed. The office of high constable, which this nobleman inherited from the Bohuns, earls of Hereford, being forfeited by his attainder, was never afterwards revived in England.

The next memorable event in the domestic history of this reign, is the divorce of queen Catherine. The king's scruples in regard to the lawfulness of his marriage, increased with the decay of the queen's beauty. She had borne him several children, but they were all dead except the princess Mary; and Henry was passionately fond of male issue. He consulted his confessor, the bishop of Lincoln, on the legality of marrying a brother's widow, and found that prelate possessed with some doubts and difficulties. He next proceeded to examine the question by his own learning and study, being himself a great divine and casuist; and having had recourse to the works of his oracle, Thomas Aquinas, he discovered that celebrated doctor had expressly declared against the lawfulness of such marriages. The archbishop of Canterbury was now applied to, and desired to consult his brethren. All the prelates in England, except Fisher, bishop of Rochester, unanimously declared, under their hand and seal, that they deemed the king's marriage unlawful. Wolsey also fortified his master's scruples; and the charms of Anne Boleyn, maid of honour to the queen, carried home every argument to the heart of Henry, more forcibly than even the suggestions of that powerful favourite.

This young lady was daughter of sir Thomas Boleyn, who had been employed by Henry in several embassies, and was allied to all the chief nobility in the kingdom. She had been carried over to Paris in early youth, by the king's sister, when espoused to Lewis XII. of France; and the graces of her mind, no less than the beauty of her person, had distinguished her even in that polished court. The time at which she returned to England is not certainly known; but it appears to have been after the king had entertained doubts concerning the lawfulness of his marriage. She immediately caught the roving and amourous eye of Henry; and as her virtue and modesty left him no hope of licentious indulgences, he resolved to raise her to the throne, which her accomplishments, both natural and acquired, seemed equally fitted to adorn.

But many bars were yet in the way of Henry's wishes. It was not only necessary to obtain a divorce from the pope, but a revocation of the bull which had been granted for a marriage with Catherine, before he could marry Anne: and he had to combat all the interest of the emperor, whose aunt he was going to degrade. The king of England, however, did not despair of success. He was in high favour with the court of Rome, and he deserved to be so. He had not only opposed the progress of the Lutheran tenets, by all the influence which his extensive and almost absolute authority conferred upon him, but he had even written a book against them; a performance in itself not contemptible, and which gave so much pleasure to Leo X. that he conferred upon

Henry the title of Defender of the Faith. Sensible therefore of his importance, as the chief pillar of the church, at a time when it stood in much need of support, he confidently applied to Clement VII. the reigning pontiff, for a dissolution of his marriage with Catherine. The pope seemed at first favourable to Henry's inclination; but his dread of displeasing the emperor, whose prisoner he had lately been, prevented him from coming to any fixed determination. At last, however, he empowered Campeggio and Wolsey, his two legates in England, to try the validity of the king's marriage. They accordingly opened their court at London, and proceeded to the examination of the matter.

The first point which came before them, and that which Henry wanted chiefly to establish, was Arthur's consummation of his marriage with Catherine; and although the queen protested, that her virgin honour was yet untainted, when the king received her into his bed, and even appealed to his Grace, the title then taken by our kings, for the truth of her assertion, stronger proofs than were produced could not be expected of such a fact, after so long an interval. But when the business seemed drawing near to a close, and while Henry was in anxious expectation of a sentence in his favour, all his hopes were suddenly blasted. Campeggio, on the most frivolous pretences, prorogued the court; and Clement, at the intercession of the emperor, revoked the cause soon after to Rome.

This finesse occasioned the fall of Wolsey. Anne Boleyn imputed to him the failure of her expectations; and Henry, who entertained the highest opinion of the cardinal's capacity, ascribed his miscarriage in the present undertaking, not to misfortune or mistake, but to the malignity or infidelity of that minister. The great seal was taken from him, and given to sir Thomas More, a man of learning, virtue, and capacity. He was indicted in the Star Chamber; his lands and goods were declared forfeited; his houses and furniture were seized, he was pronounced without the protection of the laws, and his person liable to be committed to custody. The king's heart, however, relented, and the prosecution was carried no further; but the cardinal was ordered to remove from court, and his final ruin was hanging over him.

The parliament laid hold of the present opportunity to pass several bills, restraining the impositions of the clergy; and Henry was not displeased, that the pope and his whole militia should be made sensible of their dependance upon him, and of the willingness of his subjects, if he was so disposed, to reduce the power and privileges of ecclesiastics.

Amid the anxieties with which he was agitated, he was often tempted to break off all connection with Rome: and Anne Boleyn used every insinuation, in order to make him proceed to extremities with Clement; both as the readiest and surest means of her exaltation to the royal dignity, and of spreading the new doctrines, in which she had been initiated under the duchess of Alençon, a warm friend to the Reformation. But Henry, notwithstanding these inducements, had still many reasons to desire a good agreement with the sovereign pontiff. Having been educated in a superstitious veneration for the holy see, he dreaded the reproach of heresy; and he abhor-

red all alliance with the Lutherans, the chief opponents of the papal power, because Luther, their apostle, had handled him roughly, in an answer to his book in defence of the Romish communion.

While Henry was fluctuating between these contrary opinions, two of his courtiers fell accidentally, one evening, into company with Dr. Thomas Cranmer, fellow of Jesus college, in Cambridge, a man distinguished by his learning, but still more by his candour; and as the affair of the divorce became the subject of conversation, he observed, that the best way, either to quiet the king's conscience, or to obtain the pope's consent, would be to consult all the universities in Europe with regard to that controverted point. When Henry was informed of this proposal, he was delighted with it, and swore with great violence, "By God! Cranmer has got the right sow by the ear." The doctor was immediately sent for, and taken into favour; the universities were consulted, according to his advice; and all of them declared the king's marriage invalid.

Clement, however, lying still under the influence of the emperor, continued inflexible; and as Henry was sensible, that the extremities to which he was pushed, both against the pope and the ecclesiastical order, must be disagreeable to Wolsey, whose opposition he dreaded, he renewed the prosecution against his antient favourite.

The cardinal, after his disgrace, had remained for some time at Richmond; but being ordered to remove to his see of York, he took up his residence at Cawood, in Yorkshire, where he rendered himself extremely popular in the neighbourhood, by his affability and hospitality. In this retreat he lived, when the earl of Northumberland received orders to arrest him for high treason, and conduct him to London, as a prelude to his trial. On his journey, he was seized with a disorder, which turned into a dysentery; and it was with much difficulty that he was able to reach Leicester abbey. "I am come to lay my bones among you," said Wolsey to the abbot and monks, who came to receive him: and he immediately took to his bed, whence he never rose more. "O! had I but served my God," cried he, a little before he expired, "as diligently as I have served my king, he would not have deserted me in my grey hairs." His treason, indeed, seems rather to have been against the people than the prince, or even the state; for although the violence and obstinacy of Henry's character ought perhaps to apologize for many of the cardinals public measures, his continued extortions upon the subject by the most iniquitous methods, in what he called his Legantire court, admit of no alleviation.

Thus freed from a person whom he considered as an obstacle in the way of his inclinations, and supported by the opinion of the learned in the step which he intended to take, Henry ordered a parliament, together with a convocation to meet; in which he was acknowledged, "the protector and supreme Head of the church and clergy of England;" and being now fully determined in his own mind, relative to a matter which had long engaged his thoughts, and resolved to administer ecclesiastical affairs without farther recourse to Rome, as well as to abide all consequences, he privately celebrated his marriage with Anne Boleyn, whom he had previously created marchioness of Pembroke. Cranmer, now become archbishop of Canterbury, annulled soon after the king's

marriage with Catherine, a step which ought to have preceded his second nuptials, and ratified that with Anne, who was publicly crowned queen, with all the pomp and dignity suit d to such a ceremony. And, to complete the satisfaction of Henry, on the conclusion of this troublesome business, the queen was safely delivered of a daughter, who received the name of Elizabeth, and whom we shall afterwards see swaying the English sceptre, with equal glory to herself and happiness to the people.

When intelligence was conveyed to Rome of these transactions, the conclave was all in a rage, and the pope was urged by the cardinals of the imperial faction, to dart his spiritual thunders against Henry. But Clement was still unwilling to proceed to extremities: he only declared Cranmer's sentence null, and threatened the king with excommunication, if he did not put things in their former conditions, before a day named.

In the mean time, Henry was prevailed upon, by the mediation of the king of France, to submit his cause to the Roman consistory, provided the cardinals of the imperial faction were excluded from it. The pope consented; and promised, that if the king would sign a written agreement to this purpose, his demands should be fully complied with. But on what slight incidents often depend the greatest events! The courier appointed to carry the king's written promise, was detained beyond the day fixed; news arrived at Rome, that a libel had been published in London against the Holy See, and a farce acted before the king in derision of the apostolic body. The pope and cardinals entered into the consistory inflamed with rage; the marriage between Henry and Catherine was pronounced valid; the king was declared excommunicated, if he refused to adhere to it, and the rupture with England was rendered final.

The English parliament, assembled soon after this decision of the court of Rome, conferred on the king the title of "The only supreme head of the church of England upon earth," as they had already invested him with all the real power belonging to it, a measure of the utmost consequence to the kingdom, whether considered in a civil or ecclesiastical view, and which forms a memorable era in our constitution. The legislature, by thus acknowledging the king's supremacy in ecclesiastical matters, and uniting the spiritual with the civil power, introduced greater simplicity into government, and prevented all future disputes about the limits of contending jurisdictions. A door was also opened for checking the exorbitancies of superstition, and breaking those shackles, by which human reason, policy, and industry, had so long been circumscribed; for, as a profound historian has justly observed, the prince being head of the religious, as well as of the temporal jurisdiction of the kingdom, though he might sometimes be tempted to employ the former as an engine of government, could have no interest, like the Roman pontiff, in encouraging its usurpations.

But England, though thus happily released from the oppressive jurisdiction of the pope, was far from enjoying religious freedom. Liberty of conscience was, if possible, more confined than ever. Henry not only retained his aversion against Luther and his doctrine, but so many of his early prejudices hung about him, that the idea of heresy still filled him with horror. Separate as he stood from the catholic church, he continued to value himself on maintaining its dogmas, and on guarding with fire and sword

the imaginary purity of his speculative opinions. All who denied the king's supremacy, the legitimacy of his daughter Elizabeth, or who embraced the tenets of the reformers, were equally the objects of his vengeance.

Among the latter were many unhappy persons, who had greedily imbibed the Lutheran doctrines, during Henry's quarrel with Rome, in hopes of a total change of worship; and who, having gone too far to recede, fell martyrs to their new faith. Among the former were Fisher, bishop of Rochester, and sir Thomas More, late chancellor, who refused to acknowledge the king's supremacy, and died upon the scaffold with heroic constancy. More, who was a man of a gay humour, retained his facetiousness even to the last. When he laid his head on the block, and saw the executioner ready with his weapon, "Stay, friend," said he, "till I put aside my beard; for" added he, "it never committed treason."

Although Henry thus punished both protestants and catholics, his most dangerous enemies, he was sensible, were the zealous adherents to the antient religion, and more especially the monks, who, having their immediate dependance on the Roman pontiff, apprehended their own ruin to be the certain consequence of abolishing his authority in England. The king therefore determined to suppress the monasteries, as so many nurseries of rebellion, as well as of idleness, superstition, and folly, and to put himself in possession of their ample revenues. In order to effect this purpose with some colour of justice, he appointed commissioners to visit all religious houses, and these men brought reports of such frightful disorders, lewdness, ignorance, priestcraft, and unnatural lusts, as filled the nation with horror against institutions held sacred by their ancestors, and lately objects of the most profound veneration. The lesser monasteries, said to have been the most corrupted, to the number of 376, were at once suppressed by parliament; and their revenues, goods, chattels, and plate, were granted to the king.

The convocation, which sat at the same time with parliament, passed a vote for a new translation of the bible, none being yet published by authority in the English language; and the Reformation seemed fast gaining ground in the kingdom, though the king still declared himself its enemy, when its promoters, Cranmer, Latimer, and others, met with a severe mortification, which seemed to blast all their hopes, in the untimely fate of their patroness, Anne Boleyn.

This lady now began to experience the decay of the king's affections, and the capriciousness of his temper. Henry's passions, which had subsisted in full force, during the six years that the prosecution of the divorce lasted, and seemed only to increase under difficulties, had scarcely obtained possession of its object, when it sunk into langour, succeeded by disgust. His love was suddenly transferred to a new mistress. The charms of Jane Seymour, maid of honour to the queen, a young lady of exquisite beauty, had entirely captivated him; and he thought of nothing but how to raise her to his bed and throne. This peculiarity in Henry's disposition, proceeding perhaps from an aversion against the vice of gallantry, involved him in crimes of a blacker dye, than those which he sought to avoid by forming a legal connexion. Before he could marry Jane, it was necessary to get rid of his once beloved Anne, now become a bar in

the way of his felicity. That obstacle, however, was soon removed. The heart is not more ingenious in suggesting apologies for its deviations, than courtiers in finding expedients for gratifying the inclinations of their princes. The queen's enemies, among Henry's courtiers, immediately sensible of the alienation of the king's affections, accomplished her ruin by flattering his new passion. They represented that freedom of manners, which Anne had acquired in France, as a dissolute levity; they indirectly accused her of a criminal correspondence with several gentlemen of the bed chamber, and even with her own brother; and they extolled the virtues of Jane Seymour. Henry believed all, because he wished to be convinced. The queen was committed to the tower, impeached, brought to trial condemned without evidence, and executed without remorse. History affords us no reason to call her innocence in question; and the king, by marrying her known rival, the day after her execution, made the motives of his conduct sufficiently evident, and left the world in little doubt about the iniquity of her sentence.

If farther arguments should be thought necessary in support of the innocence of the unfortunate Anne Boleyn, her serenity, and even cheerfulness, while under confinement and sentence of death, ought to have its weight, as it is perhaps unexampled in a woman, and could not well be the associate of guilt. "Never prince," says she, in a letter to Henry, "had wife more loyal in all duty, and in all true affection, than you have ever found in Anne Boleyn: with which name and place I could willingly have contented myself, if God, and your grace's pleasure, had been so pleased; neither did I at any time so far forget myself in my exaltation, or received queenship, but that I always looked for such an alteration as I now find: for the ground of my preferment being on no surer foundation than your grace's fancy, the least alteration I knew was fit and sufficient to draw that fancy to some other object." In another letter to the king, she says, "You have raised me from a private gentlewoman to a marchioness; from a marchioness to a queen; and since you can exalt me no higher in this world, you are resolved to send me to heaven, that I may become a saint!"

This gaiety continued to the last. The morning of her catastrophe, conversing with the lieutenant of the tower, on what she was going to suffer, he endeavoured to comfort her by the shortness of its duration. "The executioner indeed," replied she, "I am told is very expert; and I have but a slender neck," grasping it with her hand and smiling. The queen's brother and three gentlemen of the bed chamber, also fell victims to the king's suspicions; or rather were sacrificed, to hallow his nuptials with Jane Seymour.

The Catholics who had been the chief instruments of these tragical events, did not reap so much advantage from the fall of queen Anne as they expected. The friends of the Reformation still maintained their credit with the king; and articles of faith were drawn up by the convocation, under Henry's eye, more favourable to the new than the old religion, but still more conformable to the ideas of the loyal theologians, than agreeable to the partizans of either. Prudence, however, taught the protestants to be silent, and to rest satisfied with the ground which they had gained. The disappointed catholics were less quiet. The late innovations, particularly the dissolution of the smaller

monasteries, and the imminent danger to which all the rest were exposed, had bred discontents among the people.

The Romish religion, suited to vulgar capacity, took hold of the multitude by powerful motives: they were interested for the souls of their forefathers, which be, during many ages, in the torments of purgatory, for them. The expelled monks, wandering about the country, encouraged these prejudices, to rouse the populace to rebellion; and they assembled in large bodies in different parts of the kingdom; particularly in Lincolnshire and the northern counties. But by the prudent conduct of the duke of Norfolk, who commanded the king's forces, and who secretly favoured the cause of the rebels, but not their rebellious measures, tranquillity was happily restored to the kingdom, with little effusion of blood.

The suppression of these insurrections was followed by an event which completed Henry's domestic felicity: the birth of a son, who was baptised under the name of Edward. But this happiness was not without allay: the queen died two days after. A son, however, had been so long and so ardently desired by Henry, and was now become so necessary, in order to prevent disputes with regard to the succession, the two princesses being declared illegitimate, that the king's sorrow was drowned in his joy. And his authority being thus confirmed at home, and his consideration increased abroad, he carried into execution a measure on which he had been long resolved, the utter destruction of the monasteries.

The better to reconcile the minds of the people to this great innovation, the impostures of the monks were zealously brought to light. Among the sacred repositories of convents, were found the parings of St. Edmund's toes; some coals that roasted St. Lawrence; the girdle of the blessed Virgin, shewn in 11 different places; two or three heads of St. Ursula; and part of St. Thomas of Canterbury's shirt, much reverenced by big-bellied women. Some impostures of a more artificial nature also were discovered; particularly a miraculous crucifix, which had been kept at Boxley in Kent, and bore the appellation of the Road of Grace, the eyes, lips, and head of which moved on the approach of its votaries. The crucifix was publicly broke at St. Paul's cross, and the springs and wheels by which it had been secretly moved, were shewn to the whole people. The shrine of St. Thomas of Becket, commonly called St. Thomas of Canterbury, was likewise destroyed, though much to the regret of the populace. So superstitious was the veneration for this saint, that it appeared in one year, not a penny had been offered at God's altar; at the Virgin's, only four pounds one shilling and eightpence; but at that of St. Thomas, nine hundred and fifty four pounds six shillings and three-pence.

The exposure of such enormous absurdities and impieties took off much of the odium from a measure in itself rapacious and violent. The acquiescence of the nobility and gentry was farther procured by grants of the revenues of convents, or leases of them at a reduced rent; and the minds of the people were quieted, by being told, that the king would have no farther occasion to levy taxes, but would be able, during war as well as peace, to bear from the abbey lands the whole expence of government. Henry also

settled pensions on the ejected monks, and erected six new bishoprics; which silenced the murmurs of such of the secular clergy as were not altogether wedded to the Romish communion.

After renouncing the pope's supremacy, and suppressing monasteries, the spirit of opposition, it was thought, would lead the king to declare war against the whole doctrine and worship, as well as discipline, of the church of Rome. But although Henry, since he came to years of maturity, had been gradually changing the tenets of that theological system in which he had been educated, he was no less dogmatical in the few which yet remained to him, than if the whole fabric had been preserved entire, and so great was his scholastical arrogance, though he stood alone in his belief, that he thought himself entitled to regulate by his own particular standard the religious faith of the nation. The chancellor was accordingly ordered to open the parliament with informing them, that it was his majesty's earnest desire to extirpate from his kingdom all diversity of opinion in matters of religion. In consequence of this desire, a bill, consisting of six articles, called by the protestants the Bloody Bill, was drawn up according to the king's ideas; and having passed through both houses, received the royal assent. In this statute was established the doctrine of the real presence, or transubstantiation; the communion in one kind, or with bread only; the perpetual obligations of vows of chastity; the utility of private masses; the celibacy of the clergy, and the necessity of auricular confession. The violation of either of these articles was made punishable with death; and a denial of the real presence, to the disgrace of common sense, could not be atoned for by the most humble recantation: an instance of severity unknown even to the inquisition.

The affairs of religion being thus settled, the king began to think of a new wife; and as the duke of Cleves had great interest with the princes of the Smalcaldic league, whose alliance was considered as advantageous to England, Henry solicited in marriage Anne, daughter of that duke. A flattering picture of this princess, drawn by Hans Holbein, co-operated with these political motives to determine the king in his choice; and Anne was sent over to England. But Henry no sooner saw her, than he swore she was a great Flanders mare, and declared he never could bear her any affection. He resolved, however, to consummate his marriage, notwithstanding his dislike, sensible that a contrary conduct would be highly resented by her friends and family. He therefore told Cromwell, his minister since the death of Wolsey, and who had been instrumental in forming the match, that "as matters had gone so far, he must put his neck into the yoke." But although political considerations had induced Henry to consummate, at least in appearance, his marriage with Anne of Cleves, they could not save him from disgust. His aversion against her increased every day; and Cromwell, though still seemingly in favour, saw his own ruin, and the queen's disgrace, fast approaching.

An unforeseen cause accelerated both. The king had fixed his affections on Catherine Howard, niece to the duke of Norfolk; and, as usual, he determined to gratify his passion, by making her his royal consort. The duke, who had long been at

enmity with Cromwell, made use of his niece's insinuations against that minister; who was a promoter of the Reformation, as he formerly had of those of Anne Boleyn against Wolsey. Cromwell was accused of heresy and treason, committed to the tower, condemned and executed. He was a man of low birth, but worthy, by his integrity and abilities, of the high station to which he was raised; worthy of a better master and a better fate.

The measures for divorcing Henry from Anne of Cleves were carried forward at the same time with the bill of attainder against Cromwell. Henry pleaded, that when he espoused Anne, he had not inwardly given his consent; and that, notwithstanding the near approach he had made, he had not thought fit to consummate the marriage. The convocation sustained these reasons, and solemnly annulled the engagement between the king and queen. The parliament, ever obsequious to Henry's will, ratified the decision of the church. The marriage of the king with Catherine Howard, which followed soon after his divorce from Anne of Cleves, was regarded as a favourable incident by the catholic party; and the subsequent events corresponded with their expectations. The king's councils being now directed by the duke of Norfolk and bishop Gardener, a furious persecution was begun against the protestants. The law of the six Articles, which Cromwell had, on all occasions, taken care to soften, was executed with rigour; and Dr. Barnes, and several other clergymen, were prosecuted, and brought to the stake.

But Henry's attention was soon turned to prosecutions of a very different kind; and on a subject which affected him still more sensibly than even the violation of his favourite theological statute. He had thought himself extremely happy in his new consort. The elegant person and agreeable manners of Catherine, had entirely captivated his heart, and he had publicly, in his chapel, returned thanks to heaven for the felicity which the conjugal state afforded him. This happiness, however, was of short duration. The queen had led a dissolute life before marriage. She had abandoned herself to the footman of her grandmother, the old duchess of Norfolk, while her maid was in the same chamber, and even along with her in the same bed. The proofs of this licentiousness were positive. There was also room to believe, notwithstanding her declaration to the contrary, that she had not been faithful to the king's bed; for it appeared, that one Colepepper had passed the night with her alone since her marriage, and that she had taken Derham, one of her old paramours, into her service. When these proofs of Catherine's incontinence were laid before Henry, he was so deeply affected, that he remained for some moments speechless, and at last burst into tears. The natural ferocity of his temper, however, soon returned; and he assembled a parliament, the usual instrument of his tyranny, in order to satiate his vengeance. A bill of attainder was voted against the queen and the viscountess of Rochford, who had conducted her criminal amours. A singular bill was also passed at the same time, making it treason in any person to conceal the incontinence of a queen of England; and farther enacting, That if a king of England should marry any woman who had been incontinent, taking her for a true maid, she likewise should be deemed guilty of treason,

in case she did not previously reveal her shame to him. And the queen and lady Rochford were beheaded on Tower hill, though their guilt had preceded the framing of that statute.

The disorders of Ireland, which had been checked, but not eradicated, by Henry VII. broke out in the present reign with a violence, which was increased by the late innovations in religion. Henry was of opinion that a greater splendour of title would flatter the Irish, and promote their more perfect submission, exchanged his stile of lord of Ireland for that of king; and his proclamation for that purpose was this year communicated to parliament. He also gratified some of the chieftains of that island with titles; and the vigour of his administration restored tranquillity to his Hibernian territories.

The affairs of England became from this time so closely connected with those of Scotland as to render it necessary to take a retrospective view of the history of the latter kingdom.

James IV. after his nuptials with the English princess, appears to have enjoyed a tranquillity almost unknown to his predecessors; and began to make a considerable figure among the European potentates. He applied himself to the building of ships; one of which, the St. Michael, is supposed to have been the largest then in the world. He worked with his own hands in the building it; and it is plain from his conduct that he was aspiring to be a maritime power, in which design he was encouraged by the number of excellent seamen which Scotland then produced. The first essay of his arms was in favour of his kinsman, John, king of Denmark, whom he powerfully supported in his contest with the Swedes. He then turned his attention to the Flemings and Hollanders, who had insulted his flag, and committed many acts of piracy on his subjects.

He gave the command of a squadron to Barton, who treated all the Dutch and Flemish traders that fell into his hands as pirates, sent home their heads in hogsheads, and at length returned to Scotland with a large number of prizes. So much was James then respected on the continent, that we know of no resentment shewn by the court of Spain (to whom the Netherlands then belonged) on this occasion. This naval prosperity of Scotland brought a long succession of heavy calamities upon that country.

James having granted a letter of marque against the Portuguese to sir Andrew Barton, he is said to have plundered many English ships, on pretence of their being Portuguese property, and to have made the navigation of the narrow seas dangerous to Englishmen. In consequence of this infraction of the law of nations, Henry VIII. granted letters of marque to the two sons of the earl of Surry. These gallant commanders fell in with Barton, defeated and slew him in a violent engagement, and brought his crew prisoners to London.

To revenge the loss of this gallant commander, James invaded England with an army of 50,000 men. He was defeated at the battle of Floddenfield by the earl of Surry, and lost upon this occasion his own life, as well as those of great numbers of his subjects.

From the year 1513, when this event took place, to the year 1526, when James V. assumed the administration, Scotland experienced all those inconveniences which usually attend on a long minority. This young prince, when he became possessed of the supreme authority, displayed a laudable desire to suppress that spirit of rapine and violence which pervaded every part of his dominions; his severity was, however, in too many instances, mixed with cruelty, and therefore gained him the dislike of many of his nobility.

In the mean time, the doctrines of Luther met with a very favourable reception in Scotland, where they were introduced very soon after their promulgation in Germany. James was very strongly attached to the clergy, and therefore easily induced to encourage their persecuting zeal, while the nobility, on the contrary, repined at the immense property which had been accumulated by the church, and therefore eagerly embraced the party of the Reformers. Thus every day widened the breach between the sovereign and his subjects, and prepared the nation for those calamities it was speedily to suffer.

Had the king of Scotland flattered the pride of Henry, by following his example in ecclesiastical affairs, he would have been supported in his measures with the whole force of England; whereas he now had that force to oppose, and a dissatisfied people to rule. Flushed, however, with an advantage gained over a detachment from the English army by lord Hume, he marched at the head of 30,000 men to meet their main body, commanded by the duke of Norfolk, who had advanced as far as Kelso; and as that nobleman retreated on the approach of the Scottish army, the king resolved to enter England, and take vengeance on the invader. But his nobility, dissatisfied on account of the preference shewn to the clergy, opposed his resolution, and refused to attend him. Equally enraged and surprised at this mutiny, he reproached them with cowardice, he threatened punishment; and, still determined to make some impression on the enemy's country with the forces that adhered to him, he dispatched 10,000 men to ravage the western border. They entered England near Solway Frith, while he himself followed, at a small distance, ready to join them upon occasion. But this expedition also proved unsuccessful, and even highly unfortunate: and from a cause allied to that which had ruined the former enterprise. The king of Scotland, become peevish by disappointment, and diffident of all his nobility, deprived lord Maxwell of the command of the army, and conferred it on Oliver Sinclair, a private gentleman. The Scots, displeased with this alteration, were preparing to disband; when a small body of English forces appearing, they suddenly took to flight, and were all either killed or made prisoners. This disaster had such an effect on the haughty mind of James, that he would admit of no counsel or consolation, but abandoned himself wholly to despair. All the passions that are inimical to human life, shame, rage, and despondency, took hold of him at once. His body wasted daily by sympathizing with his anxious mind; and he was brought to the verge of the grave, when his queen was safely delivered of the celebrated and unfortunate Mary Stuart. Having no former issue living, he anxiously inquired whether his consort had brought him a son or a daughter, and being told, a daughter, he turned himself in his bed, and said, "The

crown came with a woman, and it will go with a woman! Many woes await this unhappy kingdom: Henry will make it his own either by force of arms or by marriage." He expired soon after uttering these sorrowful words. What James had foretold came in part to pass: Henry was no sooner informed of the victory at Solway, and the death of his nephew, than he formed the project of uniting Scotland to his own dominions, by marrying prince Edward, his only son, to the heiress of that kingdom. For this purpose he called together such of the Scottish nobility as were his prisoners, and offered them their liberty, without ransom, provided they would second his views. They readily agreed to a proposal so favourable to themselves, and which seemed so natural, and so advantageous to both kingdoms; and by their means, notwithstanding the opposition of cardinal Beaton, archbishop of St. Andrews, who had placed himself at the head of the regency, by forging a will in the name of the late king, the parliament of Scotland consented to a treaty of marriage and union with England.

Henry now finding himself at peace with all his neighbours, began to look out for another wife; and by espousing Catherine Par, relict of lord Latimer, he confirmed what had been foretold in jest, that he would be obliged to marry a widow, as no reputed maid would ever be persuaded to incur the penalty of his statute respecting virginity. Catherine was a woman of virtue and good sense; and though somewhat inclined to promote the Reformation, a circumstance which gave great joy to the protestant party, she delivered her sentiments with much caution in regard to the new doctrines. Henry, however, whose favourite topic of conversation was theology, by engaging her frequently in religious disputes, found means to discover her real principles; and his unwieldy corpulence and ill health having soured his temper, and increased the severity of his naturally passionate and tyrannical disposition, he ordered an impeachment to be drawn up against her: and the greatest prudence and address only could have saved her from the block. Having happily got information of the king's displeasure, Catherine replied, when he next offered to converse with her on theological subjects, that such profound speculations were little suited to the natural imbecility of her sex; observing, at the same time, that though she declined not discourse on any subject, however sublime, when proposed by his majesty, she well knew that her conceptions could serve no other purpose than to afford him a momentary amusement; that she found conversation apt to languish, when not revived by some opposition, and had ventured, at times, to feign a contrariety of sentiment, in order to afford him the pleasure of refuting her. And she ingeniously added, that she also proposed by this innocent artifice to engage the king in arguments; whence she had observed, by frequent experience, that she reaped much profit and instruction. "And is it so, sweetheart?" said Henry, "then we are friends again!" embracing her tenderly, and assuring her of his affection. The chancellor, however, ignorant of this reconciliation, came next day to arrest Catherine, pursuant to the king's warrant, but was dismissed by Henry with the opprobrious appellations of knave, fool, and beast. So violent and capricious was the temper of that prince.

But although the queen was so fortunate as to appease Henry's resentment against herself, she could not save those whom she most respected. Catherine and Cranmer

excepted, the king punished with unfeeling rigour all others, who presumed to differ from him in religious opinions; but more especially in the capital tenet, transubstantiation. Among the unhappy victims committed to the flames for denying that absurd doctrine, was Anne Ascue, a young woman of singular beauty and merit, connected with the principal ladies at court, and even the queen. She died with great tranquillity and fortitude, refusing to earn by recantation a pardon, though offered her at the stake.

Nor did Henry's tyrannical and persecuting spirit confine its vengeance to religious offenders; he was no less severe against such as excited his political jealousy. Among these were the duke of Norfolk, and his gallant son, the earl of Surrey. The duke had rendered considerable services to the crown; and although understood to be the head of the catholic party, he had always conformed to the religion of the court. He had acquired an immense fortune, in consequence of the favours bestowed upon him by Henry, and was confessedly the first subject in England. That eminence drew upon him the king's jealousy. As Henry found his death approaching, he was afraid that Norfolk might disturb the government during his son's minority, or alter his religious system. The earl of Surrey was a young nobleman of the most promising hopes, distinguished by every accomplishment which could adorn a scholar, a courtier, or a soldier of that age. But he did not always regulate his conduct by that caution and reserve which his situation required: and as he had declined all proposals of marriage among the nobility, Henry imagined that he entertained hopes of espousing his eldest daughter, the princess Mary. The suspicion of such a dangerous ambition was enough. Both he and his father, the duke of Norfolk, were committed to the tower, tried for high treason, and condemned to suffer death, without any evidence of guilt being produced against either of them; unless that the earl had quartered the arms of Edward the Confessor on his scutcheon, which was considered as a proof of his aspiring to the crown, although the practice and privilege of so doing had been openly avowed by himself, and maintained by his ancestors. Surrey was immediately executed, and an order was issued for the execution of Norfolk; but the king's death happening in the interval, nothing further was done in the matter.

Henry's health had long been declining, and his approaching dissolution had been foreseen by all around him for some days; but as it had been declared treason to foretel the king's death, no one durst inform him of his condition, lest he should, in the first transports of his fury, order the author of such intelligence to immediate punishment. Sir Anthony Denny, however, at last ventured to make known to him the awful truth. He signified his resignation, and desired that Cranmer might be sent for. The primate came, though not before the king was speechless; but as he still seemed to retain his senses, Cranmer desired him to give some sign of his dying in the faith of Christ. He squeezed the primate's hand, and immediately expired, in the 56th year of his age, and 38th of his reign; affording, in his end, a striking example, that composure in the hour of death is not the inseparable characteristic of a well spent life, nor vengeance in this world the universal fate of blood-thirsty tyrants. Happily, we know that there is a state beyond the grave, where all accounts will be settled, and a tribunal before which every one must answer for the deeds done in the flesh;

otherwise we should be apt to conclude, from seeing the same things happen to the just and to the unjust, to the cruel and to the merciful, that there was no eye in heaven that regarded the actions of man, nor any arm to punish.

But the history of this reign yields also other lessons, which come home to the breast of every Englishman, and which he ought to remember every moment of his existence. It teaches us the most alarming of all political truths; "That absolute despotism may prevail in a state, and yet the form of a free constitution remain." Nay, it even leads us to a conjecture still more interesting to Britons, "That in this country an ambitious prince may most successfully exercise his tyrannies, under the shelter of those barriers, which the constitution has placed as the security of national freedom, of our lives, our liberty, and our property." Henry changed the national religion, and, in a great measure, the spirit of the laws of England. He perpetrated the most enormous violences against the first men in the kingdom; he loaded the people with oppressive taxes, and he pillaged them by loans, which it was known he never meant to repay; but he never attempted to abolish the parliament, or even to retrench any of its doubtful privileges. The parliament was the prime minister of his tyrannical administration. It authorised his oppressive taxes, and absolved him from the payment of his debts: it gave its sanction to his most despotic and sanguinary measures; to measures, which, of himself, he durst not have carried into execution; or which, if supposed to be merely the result of his own arbitrary will, would have roused the spirit of the nation to assert the rights of humanity, and the privileges of a free people: and law would have been given to the tyrant's power, or some arm would have been found bold enough to rid the world of such a scourge, by carrying vengeance to his heart.

CHAPTER X.

GREAT BRITAIN——*During the reigns of Edward VI. and Mary.*

HENRY VIII. by his will, made near a month before his death, left the crown, first to prince Edward, his son by Jane Seymour; then to the princess Mary, his daughter by Catherine of Arragon: and lastly to the princess Elizabeth, his daughter by Anne Boleyn, though both princesses had been declared illegitimate by parliament. These particulars are necessary to be mentioned here, in order to the better understanding of the disputes which afterward arose in regard to the succession.

Edward VI. being only nine years of age at the time of his father's death, the government of the kingdom was committed to 16 executors; among whom was Cranmer, archbishop of Canterbury, the chancellor, chamberlain, and all the great officers of state. They chose one of their number, namely the earl of Hertford, the king's maternal uncle, instantly created duke of Somerset, to represent the royal majesty, under the title of protector; to whom dispatches from English ministers abroad should be directed, and whose name should be employed in all orders and proclamations. Him they invested with all the exterior symbols of regal dignity; and he procured a patent from the young king, which invested him also with regal power.

This patent, in which the executors are not so much as mentioned, being surreptitiously obtained from a minor, the protectorship of Somerset was a palpable usurpation; but as the executors acquiesced in the new establishment, and the king discovered an extreme attachment to his uncle, who was a man of moderation and probity, few objections were made to his power or title. Other causes conspired to confirm both.

Somerset had long been regarded as a secret partizan of the Reformers, become by far the most numerous and respectable body of men in the kingdom; and, being now freed from restraint, he scrupled not to discover his intention of correcting all abuses in the antient religion, and of adopting still more of the protestant innovations. He also took care that the king should be educated in the same principles. To these Edward soon discovered a zealous attachment; and all men foreseeing, in the course of his reign, the total abolition of the catholic faith in England, they began early and very generally to declare themselves in favour of those tenets, which were likely to become in the end triumphant, and of that authority by which they were propagated.

In his schemes for advancing the progress of the Reformation, the protector had always recourse to the counsels of Cranmer, whose moderation and prudence made him averse against all violent changes, and determined him to draw over the people, by insensible gradations, to that system of doctrine and discipline which he esteemed the most pure and perfect. The fabric of the secular hierarchy was left and maintained

entire; the antient liturgy was preserved, as far as was thought consistant with the new principles; many ceremonies, become venerable from age and preceding use, were retained; and the distinctive habits of the clergy, according to their different ranks, were continued.

As soon as the English government was brought to some degree of composure, Somerset made preparations for a war with Scotland; determined to execute, if possible, that project of uniting the two kingdoms by marriage, on which the late king had been so intent, and which seemed once near a happy issue, but which had been defeated by the intrigues of cardinal Beaton. This politic and powerful prelate, though not able to prevent the parliament of Scotland from agreeing to the treaty of marriage and union with England, being then in the hands of the protestant party, afterwards regained his authority, and acquired sufficient influence, not only to oblige the earl of Arran, who had succeeded him in the regency, to renounce his alliance with Henry VIII. but also to abjure the principles of reformation, to which he seemed zealously attached, and to reconcile himself, in 1543, to the Romish communion, in the Franciscan church at Stirling.

The fatal effects of this change in the religious and political sentiments of the regent, were long felt in Scotland. Arran's apostacy may even perhaps be considered as the remote cause of all the civil broils which afflicted both kingdoms in the subsequent century, and which terminated in the final expulsion of the house of Stuart, of which the infant queen of Scots was now the sole representative.

The southern and most fertile parts of the kingdom were suddenly laid waste by an English army. Various hostilities ensued, with various success; but without any decisive event. At last, an end was put to that ruinous and inglorious warfare, by the peace concluded between Henry VIII. and Francis I. at Campe, in the year 1546; the French monarch generously stipulating, that his Scottish allies should be included in that treaty. The religious consequences were more serious and lasting, and their political influence was great.

The Scottish regent consented to every thing that the zeal of the cardinal thought necessary for the preservation of the established religion. The reformers were every where cruelly persecuted, and many were condemned to that dreadful punishment which the church had appointed for its enemies. Among those committed to the flames was a popular preacher, named George Wishart; a man of honourable birth, and of primitive sanctity, who possessed in an eminent degree the talent of seizing the attention and engaging the affections of the multitude. Wishart suffered with the patience of a martyr; but he could not forbear remarking the barbarous triumph of his insulting adversary, who beheld from a window of his sumptuous palace the inhuman spectacle: and he foretold, that in a few days the cardinal should, in the same palace, lie as low, as now he was exalted high, in opposition to true piety and religion.

This prophecy, like many others, was probably the cause of the event which it foretold. The disciples of Wishart, enraged at his cruel execution, formed a conspiracy against Beaton; and having associated with them Norman Lesly, eldest son of the earl of

Rothes, who was instigated by revenge on account of private injuries, they surprised the cardinal in his palace or castle at St. Andrew's, and instantly put him to death. One of the assassins, named James Melvil, before he struck the fatal blow, turned the point of his sword to him, "Repent thee, thou wicked cardinal! of all thy sins and iniquities; but especially of the murder of George Wishart, that instrument of Christ for the conversion of these lands. It is his death which now cries for vengeance. We are sent by God to inflict the deserved punishment upon thee."

The conspirators, though only 16 in number, took possession of the castle, after turning out, one by one, the cardinal's formidable retinue; and being reinforced by their friends, they prepared themselves for a vigorous defence, and sent a messenger to London, craving assistance from Henry VIII. The death of that prince, which happened soon after, blasted all their hopes. They received, however, during the siege, supplies both of money and provisions from England; and if they had been able to hold out only a few weeks longer, they would have escaped that severe capitulation to which they were reduced, not by the regent alone, but by a body of troops sent to his assistance from France. Somerset entered Scotland at the head of 18,000 men; while a fleet of 60 sail, one half of which consisted of ships of war, and the other of vessels laden with provisions and military stores, appeared on the coast, in order to second his operations, and supply his army. The earl of Arran, regent of Scotland, had for some time observed the storm gathering, and was prepared to meet it. He had summoned together the whole force of the kingdom; and his army, double in number to that of the enemy, was posted to the greatest advantage on a rising ground, guarded by the banks of the river Eske, a little above Musselburgh, when the protector came in view. Alarmed at the sight of a force so formidable, and so happily disposed, Somerset made an overture of peace to the earl of Arran, on conditions very admissible. He offered to withdraw his troops and compensate the damage he had done by his inroad, provided the Scottish regency would engage to keep their young queen at home, and not contract her to any foreign prince, until she should arrive to the age of maturity, when she might chuse a husband without the consent of her council. But this moderate demand was rejected by the Scottish regent with disdain, and, merely on account of its moderation, it was imputed to fear; and Arran, confident of success, was afraid of nothing but the escape of the English army. He therefore left his strong camp, as soon as he saw the protector begin to move toward the sea, suspecting that he intended to embark on board his fleet; and passing the river Eske, advanced into the plain, and attacked the English army near the village of Pinkey, with no better success than his rashness deserved. Having drawn up his troops on an eminence, Somerset had now the advantage of ground on his side. The Scottish army consisted chiefly of infantry, whose principal weapon was a long spear, and whose files, for that reason, were deep, and their ranks close. A body so compact and firm easily resisted the attack of the English cavalry, broke them, and drove them off the field. Lord Grey, their commander, was dangerously wounded; lord Edward Seymour, son of the protector, had his horse killed under him, and the royal standard was near falling

into the hands of the enemy. But the Scots, being galled by the protector's artillery in front, and by the fire from the ships in flank, while the English archers, and a body of foreign fusiliers, poured in volleys of shot upon them from all quarters, they at last began to give way: the rout became general, and the whole field was soon a scene of confusion, terror, flight, and consternation. The pursuit was long and bloody. Ten thousand of the Scots are said to have fallen, and but a very inconsiderable number of the conquering enemy.

This victory, however, which seemed to threaten Scotland with final subjection, was of no real utility to England. It served only to make the Scots throw themselves inconsiderately into the arms of France, and send their young queen to be educated in that kingdom; a measure universally regarded as a prelude to her marriage with the dauphin, and which effectually disappointed the views of Somerset, and proved the source of Mary's accomplishments as a woman, and of her misfortunes as a queen. The Scottish nobles, in taking this step, hurried away by the violence of resentment, seem to have forgot that zeal for the independency of their crown, which had made them violate their engagements with Henry VIII. and oppose with so much ardour the arms of the protector.

The cabals of the English court obliged the duke of Somerset to return, before he could take any effectual measures for the subjection of Scotland; and the supplies which the Scots received from France, enabled them, in a great measure, to expel their invaders, while the protector was employed in re-establishing his authority, and in quelling domestic insurrections. His brother, lord Seymour, a man of insatiable ambition, had married the queen dowager, and openly aspired at the government of the kingdom. In order to attain this object, he endeavoured to seduce the young king to his interest; found means to hold a private correspondence with him, and publicly decried the protector's administration. He had brought over to his party many of the principal nobility, together with some of the most popular persons of inferior rank; and he had provided arms for 10,000 men, whom it was computed he could muster from among his own domestics and retainers. Though apprised of all these alarming circumstances, Somerset shewed no inclination to proceed to extremities. He endeavoured, by the most friendly expedients, by reason, entreaty, and even by loading Seymour with new favours, to make him desist from such dangerous politics. But finding all his endeavours ineffectual, he began to think of more serious remedies; and the earl of Warwick, who hoped to raise his own fortune on the ruin of both, inflamed the quarrel between the brothers. By his advice lord Seymour was committed to the Tower, attainted of high treason, condemned, and executed.

The protector had now leisure to complete the reformation, the great work which he had so successfully began, in conjunction with Cranmer, the primate, and which was now the chief object of concern throughout the nation. A committee of bishops and divines had been appointed by the privy-council to compose a liturgy: they had executed the work committed to them, as already observed, with judgment and moderation; and they flattered themselves, that they had framed a service in which every denomination of christians might concur. The form of worship, which was nearly

the same with that at present authorised by law, was established by parliament in all the churches, and uniformity was ordered to be observed in all the rites and ceremonies.

No institution can be imagined less favourable to the interests of mankind than that of the monastic life; yet was it followed by many effects, which, having ceased with the suppression of monasteries, were much regretted by the people of England. The monks, by always residing at their convents, in the centre of their estates, spent their money in the country, and afforded a ready market for commodities. They were also acknowledged to have been in England, what they still are in kingdoms where the Romish religion is established, the best and most indulgent landlords; being limited by the rules of their order to certain modes of living, and consequently having fewer motives for extortion than other men. The abbots and priors were besides accustomed to grant leases at an under value, and to receive a present in return. But the abbey lands fell under different management, when distributed among the principal nobility and gentry; the rents of farms were raised, while the tenants found not the same facility in disposing of the produce. The money was often spent in the capital; and to increase the evil, pasturage in that age being found more profitable than tillage, whole estates were laid waste by inclosure. The farmers, regarded as an useless burden, were expelled their habitations; and the cottagers deprived even of the commons, on which they had formerly fed their cattle, were reduced to beggary.

These grievances of the common people occasioned insurrections in several parts of England; and Somerset, who loved popularity, imprudently encouraged them, by endeavouring to afford that redress, which was not in his power. Tranquillity, however, was soon restored to the kingdom, by the vigilance of lord Russel and the earl of Warwick, who cut many of the unhappy malcontents in pieces, and dispersed the rest. But the protector never recovered his authority. The nobility and gentry were in general displeased with the preference which he seemed to have given to the people; and as they ascribed all the insults to which they had been lately exposed, to his procrastination, and to the countenance shewn to the multitude, they apprehended a renewal of the same disorders from his passion for popular fame. His enemies even attempted to turn the rage of the populace against him, by working upon the lower class among the catholics; and having gained over to their party the lord mayor of London, the lieutenant of the Tower, and many of the great officers of the state, they obliged Somerset to resign the protectorship, and committed him to custody. A council of regency was formed, in which the earl of Warwick, who had conducted this revolution, bore the chief sway, and who actually governed the kingdom without the invidious title of protector.

The first act of Warwick's administration was the negotiation of a treaty of peace with France and with Scotland. Henry II. had taken advantage of the disturbances in England, to recover several places in the Boulonnois, and even to lay siege, though without effect, to Boulogne itself. He now took advantage, in treating, of the state of the English court. Sensible of the importance of peace to Warwick and his party, the French monarch absolutely refused to pay two millions of crowns, which his pre-

decessor had acknowledged to be due to the crown of England, as arrears of former stipulations. He would never consent, he said, to render himself tributary to any prince, alluding to the reversion of annual payments demanded; but he offered a large sum for the immediate restitution of Boulogne and its territory. Four hundred thousand crowns were agreed on as the equivalent: Scotland was comprehended in this treaty. The English stipulated to restore some fortresses, which they still held in that kingdom.

Having thus established his administration, freed the kingdom from all foreign danger, and gained partizans, who were disposed to second him in every domestic enterprize, the earl of Warwick began to think of carrying into execution those vast projects which he had formed for his own aggrandisement. The last earl of Northumberland had died without issue; and as his brother, sir Thomas Percy, had been attainted on account of the share which he took in the Yorkshire insurrection during the late reign, the title was at present extinct, and the estate was vested in the crown. Warwick procured for himself a grant of that large estate, which lay chiefly in the North, the most warlike part of the kingdom, and was dignified with the title of the duke of Northumberland.

This was a great step; but there was yet a strong bar in the way of his ambition. Somerset, though degraded, and lessened in the public esteem in consequence of his spiritless conduct, continued to possess a considerable share of popularity. Northumberland, therefore, resolved to ruin the man he had injured, and whom he still regarded as the chief obstacle against the full attainment of his views. For that purpose, he employed his emissaries to suggest desperate projects to this unguarded nobleman, and afterwards accused him of high treason for seeming to acquiesce in them. Somerset was tried, condemned, and executed on Tower-hill; and four of his friends shared the same unjust and unhappy fate. His death was sincerely lamented by the people, to whom he had been peculiarly indulgent, and who regarded him as a martyr in their cause. Many of them dipped their handkerchiefs in his blood, which they long preserved as a precious relique.

Northumberland might seem to have now attained the highest point of elevation, to which a subject could aspire, and the greatest degree of power. His rank was second only to the royal family, his estate was one of the largest in the kingdom, and the government was entirely under his direction. But he aspired after yet greater power and consequence: his ambition knew no bounds. Having procured a parliament, which ratified his most despotic measures, and regulated its proceedings according to his will, he next endeavoured to ingratiate himself particularly with the young king, by manifesting an uncommon zeal for the reformed religion, to which the opening mind of Edward was warmly devoted, and the interests of which more sensibly touched him than all other subjects.

In his frequent conversations on this subject, Northumberland took occasion to represent to that pious prince, whose health began visibly to decline, the danger to which the reformation would be exposed, should his sister Mary, a begotted catholic suc-

ceed to the throne of England; that although no such objection lay against the princess Elizabeth, he could not, with any degree of propriety, exclude one sister, without also excluding the other; that both had been declared illegitimate by parliament; that the queen of Scots stood excluded by the late king's will, and was besides attached to the church of Rome; that these three princesses being set aside for such solid reasons, the succession devolved on the marchioness of Dorset, eldest daughter of the duke of Suffolk, and the French queen, his father's youngest sister; that the apparent successor to the marchioness was her daughter, lady Jane Gray, who was every way worthy of a crown.

These arguments made a deep impression upon the mind of Edward. He had long lamented the obstinacy of his sister Mary, in adhering to the Romish communion, and seemed to foresee all the horrors of her reign. He respected, and even loved Elizabeth; but lady Jane Gray, being of the same age, had been educated along with him, and had commanded his esteem and admiration, by the progress which she made in every branch of literature. He had enjoyed full opportunity of becoming acquainted with the purity of her religious principles, a circumstance that weighed with him above every other consideration in the choice of a successor. He, therefore listened to the proposal of disinheriting his sisters, with a patience which would otherwise have been highly criminal.

Mean while, Northumberland, finding he was likely to carry his principal point with the king, began to propose the other parts of his scheme. Two sons of the duke of Suffolk, by a marriage subsequent to the death of the French queen, having died this season of the sweating sickness (an epidemical malady which raged all over the kingdom), that title was become extinct. Northumberland persuaded the king to bestow it on the marquis of Dorset; and by means of this and other favours, he obtained from the new duke and duchess of Suffolk, their eldest daughter lady Jane, in marriage to his fourth son, lord Guilford Dudley.

In order to complete his plan of ambition, it now only remained for Northumberland to procure the desired change in the succession; and, in the present languishing state of the king's health, after all the arguments that had been used, it was no difficult matter to obtain a deed to that effect from Edward. He met with more opposition from the judges, and other persons necessary to the execution of such a deed. But they, at last, were all silenced, either by threats or promises; and the great seal was affixed to the king's letters patent, settling the crown on the heirs of the duchess of Suffolk, she herself being content to give place to her daughters, or, in other words, to lady Jane, for whom she was sensible the change in the succession had been projected.

The king died soon after this singular transaction; and so much the sooner by being put into the hands of an ignorant woman, who undertook to retore him, in a little time, to his former state of health. Most of our historians, but especially such as were well affected to the reformation, dwell with peculiar pleasure on the excellent qualities of this young prince, whom (as an elegant writer observes) the flattering promises of hope, joined to many real virtues, had made an object of fond regard to the public;

for making allowance for the delicacy of his frame, and the manners of the age in which he lived, he seems to have possessed all the accomplishments that could be expected in a youth of sixteen.

Aware of the opposition that would be made to the concerted change in the succession, Northumberland had carefully concealed the destination of the crown signed by Edward. He even kept that prince's death a secret for a while, in hopes of getting the two princesses into his power. With this view, he engaged the council to desire their attendance at court, under pretence that the king's infirm state of health required the assistance of their advice, and the consolation of their company. All obedience or anxiety, they instantly left their several retreats in the country, and set out for London, but happily, before their arrival, they both got intelligence of their brother's death, and of the conspiracy formed against themselves. Mary, who had advanced as far as Hoddesdon, when she received this notice, made haste to retire, and wrote letters to the nobility and most considerable gentry in every county of England, commanding them to assist her in the defence of her crown and person.

Farther dissimulation, Northumberland now saw, would be fruitless; he therefore went to Sion-house, where lady Jane Gray resided, accompanied by a body of the nobility, and approaching her with the respect usually paid to the sovereign, informed her of her elevation to the throne. Lady Jane, who was in a great measure ignorant of the intrigues of her father-in-law, received this information with equal grief and surprise. She even refused to accept the crown; pleaded the preferable title of the two princesses; expressed her dread of the consequences attending an enterprize so dangerous, nay so criminal, and begged to remain in that private station in which she was born. Her heart, full of the passion for literature, and the elegant arts, and of affection for her husband, who was worthy of all her regard, had never opened itself to the flattering allurements of ambition. Overcome, however, at last by the entreaties rather than the reasons of her relations, she submitted to their will; and Northumberland immediately conveyed her to London, where she was proclaimed queen, but almost without one applauding voice.

The people heard the proclamation with silence and concern: the very preachers employed their eloquence in vain to convince their auditors of the justice of lady Jane's title. Respect for the royal line, and indignation against the Dudleys, was stronger, even in the breasts of the protestants, than the dread of popery.

Mean time the inhabitants of Suffolk, whither the princess Mary had fled, resorted to her in crowds; and when she assured them, that she never meant to alter the laws of Edward VI. concerning religion, they zealously enlisted themselves in her cause. The nobility and gentry daily flocked to her with reinforcements. Sir Edward Hastings, brother to the earl of Huntingdon, carried over to her 4000 men, levied for the support of her rival. The fleet declared for her; even the earl of Suffolk, who commanded in the Tower, finding resistance fruitless, opened the gates of that fortress: and lady Jane, after the vain pageantry of wearing a crown during ten days, returned without a sigh to the privacy of domestic life.

The council ordered Mary to be proclaimed; and Northumberland, deserted by his

followers, and despairing of success, complied with that order with exterior marks of joy and satisfaction. He was brought to trial, however, and condemned and executed for high treason. Sentence was also pronounced against lady Jane Gray and lord Guildford Dudley; but they were respited on account of their youth, neither of them having attained the age of 17.

No sooner was Mary seated on the throne than a total change took place both in men and measures. They who had languished in confinement were lifted to the helm of power, and intrusted with the government of the church as well as of the state. Gardiner, Bonner, and other catholic bishops, were restored to their sees, and admitted to the queen's favour and confidence; while the most eminent protestant prelates and zealous reformers, Ridley, Hooper, Latimer, Coverdale, and Cranmer were thrown into prison.

The men of Suffolk were brow-beaten, because they presumed to plead the queen's promise of maintaining the reformed religion; and one, more bold than the rest, in recalling to her memory the engagements into which she had entered, when they enlisted themselves in her service, was set in the pillory. A parliament was procured entirely conformable to the sentiments of the court, and a bill passed, declaring the queen to be legitimate; ratifying the marriage of Henry VIII. with Catherine of Arragon, and annulling the divorce pronounced by Cranmer. All the statutes of Edward VI. respecting religion were repealed; and the queen sent assurances to the pope of her earnest desire of reconciling herself and her kingdoms to the Holy See, and requesting, that cardinal Pole might be appointed legate for the performance of that pious office.

Reginald Pole was descended from the royal family of England, being fourth son of the countess of Salisbury, daughter of the duke of Clarence. He gave early indications of that fine genius, and generous disposition, by which he was so much distinguished during his more advanced age; and Henry VIII., having conceived great friendship for him, proposed to raise him to the highest ecclesiastical dignities. As a pledge of future favours, Henry conferred on him the deanry of Exeter, the better to support him in his education. But when the king of England broke with the court of Rome, Pole not only refused to second his measures, but wrote against him in a treatise on the Unity of the Church. This performance produced an irreparable breach between the young ecclesiastic and his sovereign, and blasted all Pole's hopes of rising in the English church. He was not, however, allowed to sink. The pope and the emperor thought themselves bound to provide for a man of so much eminence; who, in support of their cause, had sacrificed all his pretensions to fortune in his own country. Pole was created a cardinal, and sent legate into Flanders. But he took no higher than deacon's orders, which did not condemn him to celibacy; and he was suspected of having aspired to the English crown, by means of a marriage with the princess Mary, during the life of her father. The marquis of Exeter, lord Montacute, the cardinal's brother, and several other persons of rank, suffered for this conspiracy, whether real or pretended. To hold a correspondence with that obnoxious fugitive, was deemed, perhaps, sufficient guilt. It was enough, at least, to expose them to the indignation of Henry;

and his will, on many occasions, is known to have usurped the place of both law and equity.

But whatever doubt may remain of Pole's intrigues for obtaining the crown of England, through an alliance with Mary, it is certain that she was no sooner seated upon the throne, than she thought of making him the partner of her sway. The cardinal, however, being now in the decline of life, was represented to the queen as unqualified for the bustle of a court, and the fatigue of business. She therefore laid aside all thoughts of him, as a husband; but as she entertained a high esteem for his wisdom and virtue, she still proposed to reap the benefit of his counsels in the administration of her government And hence her request to the pope.

This alliance, and one with the earl of Devonshire, being rejected, for various reasons, the queen turned her eye toward the house of Austria, and there found a ready correspondence with her views. Charles V., whose ambition was boundless, no sooner had heard of the succession of his kinswoman Mary to the crown of England, than he formed the scheme of obtaining the kingdom for his son Philip; hoping, by that acquisition, to balance the losses he had sustained in Germany. And Philip, although 11 years younger than Mary, who was destitute of every beauty or grace, gave his consent, without hesitation, to the match proposed by his father. The emperor, therefore, immediately sent over an agent, to signify his intentions to the queen of England; who, flattered with the prospect of marrying the presumptive heir of the greatest monarch in Europe, pleased with the support of so powerful an alliance, and happy to unite herself more closely to her mother's family, to which she had always been warmly attached, gladly embraced the proposal. The earls of Norfolk and Arundel, lord Paget, whom she had promoted, and bishop Gardiner, now become prime minister, finding how Mary's inclinations leaned, gave their opinion in favour of the Spanish alliance; but as they were sensible the prospect of it diffused universal apprehension and terror for the liberty and independency of the kingdom, the marriage articles were drawn up with all possible attention to the interest and security, and even to the grandeur of England.

The emperor agreed to whatever was thought necessary to soothe the fears of the people, or quiet the jealousies of the nobility. The chief articles were, that Philip, during his marriage with Mary, should bear the title of king, but that the administration should be vested solely in the queen; that no foreigner should be capable of holding any office in the kingdom; that no innovation should be made in the English laws, customs, or privileges; that Philip should not carry the queen abroad, without her consent, nor any of her children, without the consent of the nobility; that the male issue of the marriage should inherit, together with England, Burgundy, and the Low Countries; that if Don Carlos, Philip's son by a former marriage, should die without issue, Mary's issue, whether male or female, should succeed to the crown of Spain, and all the emperor's hereditary dominions; and that Philip, if the queen should die before him, without issue, should leave the crown of England to the lawful heir, without claiming any right of administration whatever.

But this treaty, though framed with so much caution and skill, was far from recon-

ciling the English nation to the Spanish alliance. It was universally said, that the emperor, in order to get possession of England, would agree to any terms; and that the more favourable the conditions were, which he had granted, the more certainly might it be concluded he had no serious intention of observing them. His general character was urged in support of these observations; and it was added, that Philip, while he inherited his father's vices, fraud and ambition, united to them more dangerous vices of his own, sullen pride and barbarity.

England seemed already a province of Spain, groaning under the load of despotism, and subjected to all the horrors of the inquisition. The people were every where ripe for rebellion and wanted only an able leader to have subverted the queen's authority. No such leader appeared. The more prudent part of the nobility thought it would be soon enough to correct ills when they began to be felt. Some turbulent spirits, how ever, judged it safer to prevent than to redress grievances. They accordingly formed a conspiracy to rise in arms, and declare against the queen's marriage with Philip. Sir Thomas Wyat proposed to raise Kent; sir Peter Carew, Devonshire; and the duke of Suffolk was engaged, by the hopes of recovering the crown for lady Jane Gray, to attempt raising the midland counties. But these conspirators imprudently breaking concert, and rising at different times, were soon humbled. Wyat and Suffolk lost their heads, as did lady Jane Gray and her husband, lord Guildford Dudley, to whom the duke's guilt was imputed.

This fond and unfortunate couple died with much piety and fortitude. It had been intended to execute them on the same scaffold on Tower-hill; but the council, dreading the compassion of the people for their youth, beauty, and innocence, changed its orders, and gave directions that lady Jane should be beheaded within the verge of the Tower. She refused to take leave of her husband on the day of their execution; assigning as a reason, that the tenderness of parting might unbend their minds from that firmness, which their approaching doom required of them. "Our separation," added she, "will be but for a moment; we shall soon rejoin each other, in a scene where our affections will be for ever united; and where death, disappointment, and misfortune, can no longer disturb our felicity." She saw lord Guildford led to execution, without discovering any sign of weakness; she even calmly met his headless body, as she was going to execution herself, returning to be interred in the chapel of the Tower, and intrepidly desired to proceed to the fatal spot, emboldened by the report which she had received of the magnanimity of his behaviour. On that occasion she wrote in her table-book three sentences; one in Greek, one in Latin, and one in English. The meaning of them was, that although human justice was against her husband's body, divine mercy would be favourable to his soul; that if her fault deserved punishment, her youth and inexperience ought to plead her excuse; and that God and posterity, she trusted, would shew her favour. On the scaffold, she behaved with great mildness and composure, and submitted herself to the stroke of the executioner with a steady and serene countenance.

The queen's authority was much strengthened by the suppression of this rebellion, commonly called Wyat's, from the figure which he made in it; and the arrival of Philip

in England, gave still more stability to her government. For although that prince's behaviour was ill calculated to remove the prejudices which the English nation had entertained against him, being distant in his address, and so entrenched in form and ceremony, as to be in a manner inaccessible, yet his liberality, if money disbursed for the purposes of corruption can deserve that name, made him many friends among the nobility and gentry.

Cardinal Pole also arrived in England about the same time, with legantine powers from the pope; and both houses of parliament voted an address to Philip and Mary, acknowledging that the nation had been guilty of a most horrible defection from the true church; declaring their resolution to repeal all laws enacted in prejudice of the Romish religion; and praying their majesties, happily uninfected with that criminal schism! to intercede with the Holy Father for their absolution and forgiveness of their penitent subjects. The request was readily granted. The legate, in the name of his Holiness, gave the parliament and kingdom absolution, freed them from all the ecclesiastical censures, and received them again into the bosom of the church.

In consequence of this reconciliation with the see of Rome, the punishment by fire, that frightful expedient of superstition for extending her empire, and preserving her dominion, was rigorously employed against the most eminent reformers. The mild counsels of cardinal Pole, who was inclined to toleration, were over-ruled by Gardiner and Bonner; and many persons, of all conditions, ages, and sexes, were committed to the flames.

The persecutors made their first attack upon Rogers, prebendary of St. Paul's; a man equally distinguished by his piety and learning, but whose domestic situation, it was hoped, would bring him to compliance. He had a wife, whom he tenderly loved, and ten children: yet did he continue firm in his principles; and such was his serenity after condemnation, that the gaolers, it is said, waked him from a sound sleep, when the hour of his execution approached. He suffered in Smithfield. Hooper, bishop of Gloucester, was condemned at the same time with Rogers, but sent to his own diocese to be punished, in order to strike the greater terror into his flock. The constancy of his death, however, had a very contrary effect. It was a scene of consolation to Hooper to die in their sight, bearing testimony to that doctrine, which he had formerly taught among them. He continued to exhort them, till his tongue, swollen by the violence of his agony, denied him utterance: and his words were long remembered.

Ferrar, bishop of St. David's, also suffered this terrible punishment in his own diocese. And Ridley, bishop of London, and Latimer, formerly bishop of Worcester, two prelates, venerable by their years, their learning, and their piety, perished together in the same fire at Oxford, supporting each other's constancy by their mutual exhortations. Latimer, when tied to the stake, called to his companion, "Be of good cheer, my brother! we shall this day kindle such a flame in England, as, I trust, will never be extinguished."

Sanders, a respectable clergyman, was committed to the flames at Coventry. A par-

don was offered him if he would recant; but he rejected it with disdain, and embraced the stake, saying, "Welcome cross of Christ! welcome everlasting life!" Cranmer had less courage at first; overawed by the prospect of those tortures which awaited him, or overcome by the fond love of life, and by the flattery of artful men, who pompously represented the dignities to which his character still entitled him, if he would merit them by a recantation, he agreed, in an unguarded hour, to subscribe to the doctrines of the papal supremacy and the real presence. But Mary and her council, no less, perfidious than cruel, determined, that his recantation should avail him nothing; that he should acknowledge his errors in the church before the people, and afterward be led to execution. Whether Cranmer received secret intelligence of their design, or repented of his weakness, or both, is uncertain; but he surprised the audience by a declaration very different from that which was expected from him. After explaining his sense of what he owed to God and his sovereign, "There is one miscarriage in my life," said he, "of which, above all others, I severely repent; the insincere declaration of faith, to which I had the weakness to subscribe; but I take this opportunity of atoning for my error, by a sincere and open recantation," and am willing to seal with my blood that doctrine, which I firmly believe to have been communicated from heaven."

As his hand, he added, had erred, by betraying his heart, it should first be punished, by a severe, but just doom. He accordingly stretched out his arm, as soon as he came to the stake, to which he was instantly led, and without discovering, either by his looks or motions, the least sign of compunction, or even of feeling, he held his right hand in the flames, till it was utterly consumed. His thoughts appeared to be totally occupied in reflecting on his former fault; and he called aloud several times, "This hand has offended." When it dropped off, he discovered a serenity in his countenance, as if satisfied with sacrificing to divine justice the instrument of his crime; and when the fire attacked his body, his soul, wholly collected within itself, seemed fortified against every external accident, and altogether inaccessible to pain.

Near 300 persons were brought to the stake, during this bigoted and ignominious reign; most of whom rivalled, by their patient constancy, the savage barbarity which was displayed by their persecutors. The exemplary behaviour and bloody death of these illustrious martyrs, tended powerfully to excite that deeply rooted hatred of popery, which has since been so generally felt by Englishmen, and to which we are indebted for the preservation of our civil and religious liberties.

But the members of the English parliament, though so obsequious to the queen's will, in re-uniting the kingdom to the see of Rome, and in authorising the butchery of their fellow subjects, who rejected the catholic faith, had still some regard left both to their own and the national interest. They refused to restore the possessions of the church. And Mary failed, not only in an attempt to get her husband declared presumptive heir to the crown, and to obtain the consent of parliament for vesting the administration in his hands, but in all her political hopes. She could not so much as obtain a parliamentary consent to his coronation.

The queen likewise met with much, and long opposition from parliament, in another

favourite measure; namely, in an attempt to engage the nation in the war which was kindled between France and Spain. The motion was for a time laid aside; and Philip, disgusted with Mary's importunate love, and with her jealousy and spleen, which increased with her declining years, and her despair of having issue, had gone over to his father, Charles V., in Flanders. The voluntary resignation of the emperor, soon after this visit, put Philip in possession of all the wealth of America, and of the richest and most extensive dominions in Europe. He did not, however, lay aside his attention to the affairs of England, of which he still hoped to have the direction; and he came over to London, in order to support his parliamentary friends in a new motion for a French war. This measure was zealously opposed by several of the queen's most able counsellors, and particularly by cardinal Pole, who, having taken priest's orders, had been installed in the see of Canterbury, on the death of Cranmer. But hostilities having been begun by France, as was pretended, war was at last denounced against that kingdom; and an army of 10,000 men was sent over to the Low Countries, under the command of the earl of Pembroke.

A like attempt was made in Scotland, by the French monarch, to engage that kingdom in a war with England. Mary of Guise, the queen dowager, had obtained the regency, through the intrigues of the court of France; and Henry II. now requested her to take part in the common quarrel. She accordingly summoned a convention of the states, and asked their concurrence for commencing hostilities against England. But the Scottish nobles, who were become as jealous of French, as the English were of Spanish influence, refused their assent; and the regent had in vain recourse to stratagem, in order to accomplish her purpose.

The French monarch, however, without the assistance of his antient allies, and notwithstanding the unfortunate battle of St. Quintin, made himself master of Calais, which the English had held upwards of 200 years; and which, as it opened to them an easy and secure entry into the heart of France, was regarded as the most valuable foreign possession belonging to the crown. This important place was recovered by the vigilance and valour of the duke of Guise; who, informed that the English, trusting to the strength of the town, deemed in that age impregnable, were accustomed to recal, towards the close of summer, great part of the garrison, and to replace it in the spring, undertook, in the depth of winter, and succeeded in an enterprize, that surprised his own countrymen no less than his enemies. As he knew that success depended upon celerity, he pushed his attacks with such vigour, that the governor was obliged to surrender on the eighth day of the siege.

The joy of the French on that occasion was extreme. Their vanity indulged itself in the utmost exultation of triumph, while the English gave vent to all the passions which agitate a high spirited people, when any great national misfortune is evidently the consequence of the misconduct of their rulers. They murmured loudly against the queen and her council; who, after engaging the nation in a fruitless war, for the sake of foreign interest, had thus exposed it, by their negligence, to so severe a disgrace.

This event, together with the consciousness of being hated by her subjects, and des-

pised by her husband, so much affected the queen of England, whose health had long been declining, that she fell into a low fever, which put an end to her short and inglorious reign. "When I am dead," said she to her attendants, "you will find Calais at my heart." Mary possessed few qualities, either estimable or amiable. Her person was as little engaging as her manners; and amid that complication of vices which entered into her composition, namely, obstinacy, bigotry, violence, and cruelty, we scarcely find any virtue but sincerity.

CHAPTER XI.

Great Britain and Ireland——*During the reign of Elizabeth.*

THE English nation had been under great apprehensions for the life of the princess Elizabeth, during her sister's whole reign. The attachment of Elizabeth to the reformed religion offended Mary's bigotry; and menaces had been employed to bring her to a recantation. The violent hatred which the queen entertained against her, broke out on every occasion; and all her own distinguished prudence was necessary, in order to prevent the fatal effects of it. She retired into the country; and knowing that she was surrounded with spies, passed her time wholly in reading and study. She complied with the established mode of worship, and eluded all questions in regard to religion. When asked, on purpose to gather her opinion of the real presence, what she thought of these words of Christ, "This is my body,"—and whether she believed it the true body of Christ that was in the sacrament of the Lord's Supper? she replied thus,

"Christ was the Word that spake it,
"He took the bread and brake it;
"And what the Word did make it;
"That I believe and take it."

After the death of her sister, Elizabeth delivered her sentiments more freely; and the first act of her administration was the re-establishment of the protestant religion. The liturgy was again introduced in the English tongue, and the oath of supremacy was tendered to the clergy. The number of bishops had been reduced to 14, by a sickly season, which preceded this change; and all these, except the bishop of Landaff having refused compliance, were deprived of their sees. But of the great body of the English clergy, only 80 rectors and vicars, 50 prebendaries, 15 heads of the colleges, 12 archdeacons, and as many deans, sacrificed their livings for their theological opinions.

Henry II. of France, and Philip of Spain, beheld Elizabeth's elevation with equal solicitude: and equally sensible of the importance of gaining her favour, both set themselves with emulation to court it. Henry endeavoured, by the warmest expressions of regard and friendship, to detach her from the Spanish alliance, and to engage her to consent to a separate peace with him; while Philip, unwilling to lose his connection with England, not only vied with Henry in declarations of esteem for Elizabeth, and in professions of his resolution to cultivate the strictest amity with her, but, in order to confirm and perpetuate their union, he offered himself to her in marriage and undertook to procure a dispensation from the pope for that purpose.

Elizabeth weighed the proposals of the two monarchs with that provident discernment of her true interest, which was conspicuous in all her deliberations; and although secretly determined to yield to the solicitations of neither, she continued for a time to amuse both. By this artifice, as well as by her at first concealing her sentiments concerning religion, the young queen so far gained upon Philip, that he warmly espoused her interest in the conferences at Cercamp, and afterwards at Chateau Cambresis, whither they were removed. The earnestness, however, with which he seconded the arguments of the English plenipotentiaries, began to relax, in proportion as his prospect of espousing the queen became more distant; and the vigorous measures that Elizabeth took, as soon as she found herself firmly seated on the throne, not only for overturning all that her sister had done in favour of popery, but for establishing the protestant church on a sure foundation, convinced Philip, that his hopes of an union with her had been in vain, and were now desperate. Henceforth decorum alone made him preserve the appearance of interposing in her favour. Elizabeth, who expected such an alteration in his conduct, quickly perceived it. But, as peace was necessary to her, instead of resenting this coldness, she became more moderate in her demands, in order to preserve the feeble tie, by which she was still united to him; and Philip, that he might not seem to have abandoned the English queen, insisted, that the treaty of peace between Henry and Elizabeth should be concluded in form, before that between France and Spain.

The treaty between Henry and Elizabeth contained no article of importance, except that which respected Calais. It was stipulated, that the king of France should retain possession of that town, with all its dependencies, during eight years, at the expiration of which term he should restore it to England. But as the force of this stipulation was made to depend on Elizabeth's preserving inviolate, during the same number of years, the peace both with France and Scotland, all men of discernment saw, that it was but a decent pretext for abandoning Calais; and, instead of blaming her, they applauded her wisdom, in palliating what she could not prevent.

It has been already related, that Mary, the young queen of Scotland, had been sent to receive her education in France. She there married the dauphin, who, in 1559, ascended the throne, by the name of Francis II. The princes of Lorrain, who negotiated this marriage, while they prevailed on the French court to grant the Scottish nation every security for the independency of that crown, engaged the young queen of Scots to subscribe privately three deeds, by which, failing the heirs of her own body, she conferred the kingdom of Scotland, with whatever inheritance or succession might accrue to it, in free gift upon the crown of France, declaring any deed which her subjects had, or might extort from her, to the contrary, to be void, and of no obligation.

By the succession mentioned in these deeds, the crown of England seems to have been meant; for no sooner were the princes of Lorrain informed of the accession of Elizabeth, than they solicited at Rome, and obtained a bull, declaring her birth illegitimate; and as the queen of Scots, then married to the dauphin, was the next heir

by blood, they persuaded Henry II. to permit his son and daughter-in-law to assume the title and arms of England.

No obvious measure, however, was taken during the reign of Henry II. in support of the claim of the queen of Scots; but no sooner were the princes of Lorrain in full possession of the administration under his successor, Francis II. than more vigorous and less guarded counsels were adopted. Sensible that Scotland was the quarter whence they could attack England to most advantage, they gave, as a preparatory step, orders to their sister, the queen-regent, and encouraged her by promises of men and money, to take effectual measures for humbling the malcontents, and suppressing the protestant opinions in that kingdom; hoping that the English catholics, formidable at that time by their zeal and numbers, and exasperated against Elizabeth, on account of the change which she had made in the national religion, would rise in support of the succession of the queen of Scots, when animated by the prospect of protection, and throw themselves into the arms of France, as the only power that could secure to them their antient worship, and the privileges of the Romish church.

No stranger to these violent counsels, Elizabeth saw her danger and determined to provide against it. Mean while the situation of affairs in Scotland afforded her a favourable opportunity, both of revenging the insult offered to her crown, and of defeating the ambitious views of France.

The reformation was fast advancing in Scotland. All the low country was deeply tinctured with the protestant opinions; and as the converts to the new religion had been guilty of no violation of public peace since the murder of Cardinal Beaton, whose death was partly occasioned by private revenge, the queen-regent, willing to secure their favour, in order to enable her to maintain that authority which she had found so much difficulty to acquire, connived at the progress of doctrines, which she wanted power utterly to suppress. Too cautious, however, to trust to this precarious indulgence for the safety of their religious principles, the heads of the protestant party in Scotland entered privately into a bond of association for their mutual protection and the propagation of their tenets, styling themselves the Congregation of the Lord, in contradistinction to the established church, which they denominated the Congregation of Satan.

Such associations are generally the forerunners of rebellion; and it appears, that the heads of the congregation in Scotland, carried their views farther than a mere toleration of the new doctrines. So far they were to blame, as enemies to civil authority, but the violent measures pursued against their sect, before this league was known or avowed, sufficiently justify the association itself, as the result of a prudent foresight, and a necessary step to secure the free exercise of their religion. Alarmed at the progress of the reformation, the popish clergy had attempted to recover their sinking authority by enforcing the tyrannical laws against heresy; and Hamilton, the primate, formerly distinguished by his moderation, had sentenced to the flames an aged priest, convicted of embracing the protestant opinions.

This was the last barbarity of the kind that the catholics had the power to exercise

in Scotland. The severity of the archbishop rather roused than intimidated the reformers. The congregation now openly solicited subscriptions to their league: and not satisfied with new and more solemn promises of the regent's protection, they presented a petition to her, craving a reformation of the church, and of the wicked, scandalous, and detestable lives of the clergy. They also framed a petition, which they intended to present to parliament, soliciting some legal protection against the exorbitant and oppressive jurisdiction of the ecclesiastical courts. They even petitioned the convocation; and insisted that prayers should be said in the vulgar tongue, that bishops should be chosen by the gentry of the diocese, and priests with the consent of the parishioners.

Instead of soothing the protestants, by any prudent concessions, the convocation rejected their demands with disdain; and the queen-regent, who had hitherto wisely temporised between the parties, and whose humanity and sagacity taught her moderation, having received during the sitting of the assembly, the violent commands of her brother, prepared to carry their despotic plan into execution, contrary to her own judgment and experience. She publicly expressed her approbation of the decrees, by which the principles of the reformers were condemned in the convocation, and cited the most eminent protestant teachers to appear before the council at Stirling.

The members of the congregation, alarmed, but not overawed by this danger, assembled in great numbers, agreeable to the custom of Scotland at that time, in order to attend their pastors to the place of trial; to protect and to countenance them: and the queen-regent dreading the approach of so formidable a body, empowered Erskine of Dun, a person of high authority with the reformers, to assure them that she would put a stop to the intended proceedings, provided they advanced no further. They listened with pleasure, and perhaps with too much credulity, to so pacific a proposition; for men whose grievances obliged them to fly in the face of the civil power, under whatever plausible pretext their purpose may be concealed, should trust to nothing less than the solemnity of a contract. The regent broke her promise, conformable to her maxim, that "the promises of princes ought not to be too carefully remembered, nor the performance of them exacted, unless it suits their own conveniency." She proceeded to call to trial the persons formerly summoned, and on their not appearing, though purposely prevented, they were pronounced outlaws.

By this ignoble artifice, the queen-regent forfeited the esteem and confidence of the whole nation. The protestants boldly prepared for their own defence, and Erskine, enraged at being made the instrument of deceiving his party, instantly repaired to Perth, whither the leaders of the congregation had retired, and inflamed the zeal of the associates, by his representations of the regent's inflexible resolution to suppress their religion. His ardour was powerfully seconded by the rhetoric of John Knox, a preacher possessed of a bold and popular eloquence. Having been carried prisoner into France, together with other persons taken in the castle of St. Andrew's, soon after the murder of cardinal Beaton, Knox made his escape out of that kingdom; and, after residing sometimes in England, sometimes in Scotland, had found it necessary, in order to

avoid the vengeance of the popish clergy, to retire to Geneva. There he became more thoroughly instructed in the doctrines of Calvin, who had succeeded Zuinglius and completed the ecclesiastical establishments of that republic. Invited home by the heads of the protestant party in Scotland, Knox had arrived in his native country a few days before the trial appointed at Stirling, and immediately joined his brethren, that he might share with them in the common danger, as well as in the glory of promoting the common cause. In the present ferment of men's minds, occasioned by the regent's deceitful conduct, and the sense of their own danger, he mounted the pulpit, and declaimed with such vehemence against the idolatry, and other abuses of the church of Rome, that his audience were strongly incited to attempt its utter subversion. During those movements of holy indignation, the indiscreet bigotry of a priest, who, immediately after that violent invective, was preparing to celebrate mass, and had opened all his repository of images and reliques, hurried the enthusiastic populace into immediate action. They fell with fury upon the devout catholic, broke the images, tore the pictures, overthrew the altars, and scattered about the sacred vases. They next proceeded to the monasteries, against which their zeal more particularly pointed its thunder. Not content with expelling the monks, and defacing every implement of idolatrous worship, as they termed it, they vented their rage upon the buildings which had been the receptacles of such abominations; and, in a few hours, those superb edifices were level with the ground.

Provoked at these violences, and others of a like kind, the queen-regent assembled an army, composed chiefly of French troops; and being assisted by such of the nobility as still adhered to her cause, they determined to inflict the severest vengeance on the whole protestant party. Intelligence of her preparations, as well as of the spirit by which she was actuated, soon reached Perth; and the heads of the congregation, who had given no countenance to the late insurrection in that city, would gladly have soothed her by the most dutiful and submissive addresses, but finding her inexorable, they prepared for resistance, and their adherents flocked to them in such numbers, that within a few days they were in a condition, not only to defend the town, but to take the field with superior forces. Neither party, however, discovered much inclination to hazard a battle, both being afraid of the dangerous consequences of such a trial of strength; and through the mediation of the earl of Argyle, and of James Stuart, prior of St. Andrew's, the young queen's natural brother, who, although closely connected with the reformers, had not yet openly deserted the regent, a treaty was concluded with the congregation. In this treaty it was stipulated, among other provisions, that indemnity should be granted to all persons concerned in the late insurrection, and that the parliament should immediately be assembled in order to compose religious differences. Both these stipulations the queen-regent broke, by neglecting to call the parliament, by fining some of the inhabitants of Perth, banishing others, turning the magistrates out of office, and leaving a garrison in the town, with orders to allow the exercise of no other religion but the roman catholic. The protestants renewed the league, and had again recourse to arms; despoiling wherever they turned their route, the churches

of their sacred furniture, and laying the monasteries in ruins. New treaties were concluded, and again broken, and new ravages were committed on the monuments of ecclesiastical pride and luxury.

Meanwhile, the congregation had been joined, not only by the earl of Argyle and the prior of St Andrew's, but also by the duke of Chatelrault and his son the earl of Arran, the presumptive heir of the crown, and had possessed themselves of the capital. They now aimed at the redress of civil as well as religious grievances; requiring, as a preliminary toward settling the kingdom, and securing its liberties, the immediate expulsion of the French forces out of Scotland. The queen-regent, sensible of the necessity of giving way to a torrent which she could not resist, amused them for a time with fair promises and pretended negociations; but being reinforced with 1,000 foreign troops, and encouraged by the court of France to expect soon the arrival of an army so powerful, as the zeal of her adversaries however desperate, would not dare to encounter, she listened to the rash counsels of her brother, and at last gave the congregation a positive denial. She was not answerable to the confederate lords, she said, for any part of her conduct; nor should she, upon any representation from them, abandon measures which she deemed necessary, or dismiss forces that she found useful; ordering them at the same time, on pain of her displeasure, and as they valued their allegiance, to disband the troops which they had assembled.

This haughty reply to their earnest and continued solicitations, determined the leaders of the congregation to take a step worthy of a brave and free people. They assembled the whole body of peers, barons and representatives of boroughs, that adhered to their party; and the members of this bold convention (which equalled in number, and exceeded in dignity the usual meetings of parliament), after examining the most delicate and important question that can possibly fall under the consideration of subjects, "the obedience due to an unjust and oppressive administration," gave their suffrage, without one dissenting voice, for depriving Mary of Guise of the office of regent, which she had exercised so much to the detriment of the kingdom. The queen Dowager had already retired into Leith, the sea-port of Edinburgh, which she had fortified and garrisoned with French troops, and where she daily expected new reinforcements. Leith was immediately invested by the forces of the congregation; but the confederate lords soon found, that their zeal had engaged them in an undertaking which exceeded their ability to accomplish. The French garrison, despising the tumultuous efforts of raw and undisciplined troops, refused to surrender the town; and the protestant leaders were neither sufficiently skilful in the art of war, nor possessed of the artillery or magazines necessary for the purpose of a siege. Nor was this their only misfortune; their followers, accustomed to decide every quarrel by immediate action, were strangers to the fatigues of a long campaign, and soon became impatient of the severe and constant duty which a siege requires. They first murmured, then mutinied; the garrison took advantage of their discontents; and making a bold sally, cut many of them in pieces, and obliged the rest to abandon the enterprize.

Soon after this victory, the queen-dowager received from France a new reinforce-

ment of 1000 veteran foot, and some troops of horse. These, together with a detachment from the garrison of Leith, were sent out to scour the country, and to pillage and lay waste the houses and lands of the protestants. Already broken and dispirited, and hearing that the marquis of Elbeuf, the queen-dowager's brother, was suddenly expected with a great army, the leaders of the congregation began to consider their cause as desperate, unless the Lord, whose holy name they had assumed, should miraculously interpose in their behalf. But whatever confidence they might place in divine aid, they did not neglect human means.

The Scottish protestants, in this pressing extremity, thought themselves excusable in craving foreign help. They turned their eyes towards England, which had already supplied them with money, and resolved to implore the assistance of Elizabeth to enable them to finish an undertaking, in which they had so fatally experienced their own weakness; and as the sympathy of religion, as well as regard to civil liberty, had now counterbalanced the antient animosity against that sister-kingdom, this measure was the result of inclination, no less than of interest or necessity. Maitland of Lethington, formerly the regent's principal secretary, and Robert Melvil, already acquainted with the intrigues of courts, were therefore secretly dispatched, as the most able negotiators of the party, to solicit succours from the queen of England.

The wise counsellors of Elizabeth did not long hesitate in agreeing to a request, which corresponded so perfectly with the views and interests of their mistress. Secretary Cecil, in particular, represented to the English queen the necessity, as well as equity, of interposing in the affairs of Scotland, and of preventing the conquest of that kingdom, at which France openly aimed. Every society, he observed, has a right to defend itself, not only from present dangers, but from such as may probably ensue; that the invasion of England would immediately follow the reduction of the Scottish malcontents, by the abandoning of whom to the mercy of France, Elizabeth would open a way for her enemies into the heart of her own kingdom, and expose it to all the calamities of war, and the danger of conquest. Nothing therefore remained, he added, but to meet the enemy while yet at a distance, and, by supporting the leaders of the congregation with an English army, to render Scotland the scene of hostilities; to crush the designs of the princes of Lorrain in their infancy; and, by such an early and unexpected effort, finally to expel the French out of Britain, before their power had time to grow up to any formidable height.

Elizabeth, throughout her whole reign, was cautious, but decisive; and by her promptitude in executing her resolutions, joined to the deliberation with which she formed them, her administration became as remarkable for its vigour, as for its wisdom. No sooner did she determine to afford assistance to the leaders of the congregation, a measure to which the reasoning of Cecil effectually swayed her, than they experienced the activity as well as extent of her power.

The season of the year would not permit her troops to take the field; but, lest the French army should, in the mean time, receive an accession of strength, she instantly ordered a squadron to cruise in the Frith of Forth, and early in the spring, an

English army, consisting of 6000 foot and 2000 horse, entered Scotland, under the command of lord Grey of Wilton.

The leaders of the congregation assembled from all parts of the kingdom, to meet their new allies; and having joined them with vast numbers of their followers, the combined army advanced toward Leith. The French, little able to keep the field against so superior a force, confined themselves within the walls of the fortification. The place was immediately invested; and although the fleet that carried the reinforcement, under the marquis of Elbeuf, had been scattered by a violent storm, and was either wrecked on the coast of France, or with difficulty recovered the ports of that kingdom, the garrison, by an obstinate defence, protracted the siege to a great length.

Mean while, the queen-dowager died; and many of the catholic nobles, jealous of the French power, and more zealous for the liberty and independency of their country than for their religion, subscribed to the alliance with England. Nothing, therefore, could now save the garrison of Leith, but the immediate conclusion of a treaty, or the arrival of a powerful army from France; and the situation of that kingdom constrained the princes of Lorrain to turn their thoughts, though with reluctance, toward pacific measures.

Plenipotentiaries were therefore sent to Edinburgh, where a treaty was signed with the ambassadors of Elizabeth. In this treaty, it was stipulated, that the French forces should instantly evacuate Scotland, and that Francis and Mary should thenceforth abstain from assuming the title of king and queen of England, or bearing the arms of that kingdom. Nor were the concessions granted to the congregation less important; namely, that an amnesty should be published for all past offences; that none but natives should be put into any office in Scotland; that no foreign troops should hereafter be introduced into the kingdom, without the consent of parliament; that the parliament should name 24 persons, out of whom the queen should chose seven, and the parliament five; and in the hands of these 12, so elected, should the whole administration be vested during Mary's absence; that she should neither make peace nor war without the consent of parliament; and that the parliament, at its first meeting, which was fixed to a certain day, should take into consideration the religious differences, and represent its sense of them to the king and queen.

A few days after the conclusion of this treaty, both the French and English armies quitted Scotland; and the leaders of the congregation being now absolute masters of the kingdom, made no farther scruple or ceremony in completing the work of the reformation.

The parliament, which was properly an assembly of the nobles, or great barons, and dignified clergy, met on the day named; and on this occasion the burgesses and lesser barons, who had also a right to be present in that assembly, but who seldom exercised it, stood forth to vindicate their civil and religious liberties, eager to aid with their voice in the senate, that cause which they had defended with their sword in the field. The protestant members, who greatly out-numbered their adversaries, after ratifying the principal articles of the late treaty, and giving their sanction to a

confession of faith presented to them by their teachers, prohibited the exercise of religious worship, according to the rites of the Romish church, under the penalty of forfeiture of goods, as the punishment of the first act of disobedience; banishment, as the punishment of the second; and death, as the reward of the third. With such indecent haste did the very persons, who had just escaped the rigour of ecclesiastical tyranny, proceed to imitate these examples of severity, of which they had so justly complained! A law was also passed, for abolishing the papal jurisdiction in Scotland; and the presbyterian form of worship was established, nearly as now constituted in that kingdom.

Francis and Mary refused to ratify these proceedings; which, by the treaty of Edinburgh, ought to have been presented for approbation, in the form of deliberations, not of acts. But the Scottish protestants gave themselves little trouble about their sovereign's refusal. They immediately put the statutes in execution; they abolished the mass: they settled their ministers; and they committed furious devastations on the sacred buildings, which they considered as dangerous reliques of idolatry, laying waste every thing venerable and magnificent, that had escaped the storm of popular insurrection. Abbeys, cathedrals, churches, libraries, records, and even the sepulchres of the dead, perished in one common ruin.

United by the consciousness of such unpardonable stretches of authority, and well acquainted with the imperious character of the princes of Lorrain, the protestant part of the Scottish parliament, seeing no safety for themselves, but in the protection of England, dispatched ambassadors to Elizabeth, to express their sincere gratitude for her past favours, and represented to her the necessity of continuing them. Elizabeth, on her part, had equal reason to desire an union with these northern reformers. Though the disorders in France had obliged the princes of Lorrain to remit their efforts in Scotland, and had been one chief cause of the success of the English arms, they were determined not to relinquish their authority, or yield to the violence of their enemies. Nor had they yet laid aside their design of subverting Elizabeth's throne. Francis and Mary, whose councils were still wholly directed by them, obstinately refused to ratify the treaty of Edinburgh, and persisted in assuming the title and arms of England. Aware of the danger attending such pretensions, Elizabeth not only promised support to the protestant party in Scotland, but secretly encouraged the French malcontents; and it was with pleasure that she heard of the violent faction which prevailed in the court of France, and of the formidable opposition against the measures of the duke of Guise.

The death of Francis II. without issue by the queen of Scots, and the change which it produced in the French council, at once freed the queen of England from the perils attending an union of Scotland with France, and the Scottish protestants from the terror of the French power. The joy of the congregation was extreme. They ascribed those events to the immediate interposition of Providence, in favour of his chosen people; and Elizabeth, without looking so high for their causes, determined to take advantage of their effects, in order more firmly to establish her throne. She still regarded the queen of Scots as a dangerous rival, on account of the number of English catholics,

who were generally prejudiced in favour of Mary's title, and would now adhere to her with more zealous attachment, when they saw that her succession no longer endangered the liberties of the kingdom. She therefore gave orders to her ambassador at the court of France, to renew his applications to the queen of Scots, and to require her immediate ratification of the treaty of Edinburgh.

Mary, slighted by the queen-mother, who imputed to that princess all the mortification she had met with during the life of Francis; forsaken by the swarm of courtiers, who appear only in the sunshine of prosperity, and overwhelmed with all the sorrow which so sad a reverse of fortune could occasion, had returned to Rheims; and there, in solitude, indulged her grief, or hid her indignation. But, notwithstanding her disconsolate condition, and though she had desisted, after her husband's death, from bearing the arms, or assuming the title of England, she still eluded ratifying the treaty of Edinburgh, and refused to make any solemn renunciation of her pretensions to the English crown.

Meanwhile, James Stuart, prior of St. Andrew's, her natural brother, arrived at Rheims, in deputation from the state of Scotland, inviting the queen to return into her native kingdom, and assume the reins of government. But Mary, though severely sensible she was no longer queen of France, was in no haste to leave a country, where she had been educated from her earliest infancy, and where so many attentions had been paid to her person as well as to her rank. Accustomed to the elegance, gallantry, and gaiety of a splendid court, and to the conversation of a polished people, by whom she had been loved and admired, she still fondly lingered in the scene of all these enjoyments, and contemplated with horror the barbarism of her own country, and the turbulence of her native subjects, who had so violently spurned all civil and religious authority.

By the advice of her uncles, however, she determined at last to set out for Scotland; and as the course, in sailing from France to that kingdom, lies along the English coast, she demanded of Elizabeth, by the French ambassador D'Oisel, a safe conduct during her voyage. That request, which decency alone obliged one sovereign to grant to another, Elizabeth rejected, in such a manner as gave rise to no slight suspicion of a design either to obstruct the passage, or intercept the person of the queen of Scots.

This ungenerous behaviour of Elizabeth filled Mary with indignation, but did not retard her departure from France. Having cleared the room of her attendants, she said to Throgmorton, the English ambassador, "How weak I may prove, or how far a woman's frailty may transport me, I cannot tell; however, I am resolved not to have so many witnesses of my infirmity as your mistress had at her audience of my ambassador D'Oisel. There is nothing disturbs me so much, as having asked with so much importunity a favour, which it was of no consequence for me to obtain. I can, with God's leave, return to my own country, without her leave, as I came to France in spite of all the opposition of her brother, king Edward: neither do I want friends, both able and willing to conduct me home, as they have brought me hither; though I was desirous rather to make an experiment of your mistress's friendship, than of the assistance

of any other person.' She embarked on board a galley at Calais; and passing the English fleet, under cover of a thick fog, arrived safely at Leith, attended by the duke of Aumale, the Grand Prior, and the marquis of Elbeuf, three of her uncles of the house of Lorrain, together with the marquis of Damville, and other French courtiers.

The circumstances of Mary's departure from France are truly affecting. The excess of her grief seems to have proceeded from a fatal presage of that scene of misfortune on which she was about to enter Not satisfied with mingling tears with her mournful attendants, and bidding them adieu with a sorrowful heart, she kept her eyes fixed upon the French coast, after she was at sea, and never turned them from that darling object, till darkness fell, and intercepted it from her view. Even then, she would neither retire to the cabin, nor taste food; but commanding a couch to be placed on the deck, she there waited, with fond impatience, the return of day. Fortune soothed her on this occasion. The weather proving calm, the galley made but little way during the night, so that Mary, at morning, had once more an opportunity of seeing the French coast. She sat up on her couch, and still anxiously looking toward the land, often repeated with a sigh, "Farewel, France! farewel, beloved country! which I shall never more behold"

The first appearance of affairs in Scotland was more favourable than Mary had reason to expect. She was received by her subjects with the loudest acclamations of joy, and every demonstration of welcome and regard. Being now in her 19th year, the bloom of youth, and the beauty and gracefulness of her person, drew universal admiration; while her elegant manners and enlightened understanding commanded general respect. To the accomplishments of her own sex, she added many of the acquisitions of ours. She was skilled in most languages, antient as well as modern. The progress she had made in poetry, music, rhetoric, and all the arts and sciences, then esteemed useful or ornamental, was far beyond what is commonly attained by the sons or daughters of royalty, who are born and educated as the immediate heirs of the crown; and a courteous affability, which, without lessening the dignity of a sovereign, steals on the hearts of subjects with a bewitching insinuation, rendered all her other qualities more engaging.

The first measures of Mary's administration confirmed the prepossession entertained in her favour. According to the advice of D'Oisel and her uncles, she bestowed her confidence entirely on the leaders of the protestant party, who were alone able, she found, to support her government. The prior of St. Andrew's, her natural brother, whom she soon after created earl of Murray, obtained the chief authority, and, under him, Maitland of Lethington, a man of great sagacity, had a principal share in her confidence. Her choice could not have fallen upon persons more agreeable to her people.

But there was one circumstance which blasted all these promising appearances, and deprived Mary of that general favour, which her amiable manners and prudent measures gave her just reason to expect. She was still a papist; and although she published, soon after her arrival, a proclamation, enjoining every one to submit to the reformed

religion, as established by parliament, the more zealous protestants could neither be reconciled to a person polluted by such an abomination, nor lay aside their jealousies of her future conduct. It was with much difficulty she obtained permission to celebrate mass in her own chapel. The zeal of the reformers passed, in some instances, beyond the bounds of prudence and of justice and excited them to load their sovereign with unjustifiable reproaches, and refused her that liberty of conscience, which, whether from humanity or policy, she constantly allowed to her subjects. She perceived her only expedient for maintaining tranquillity at home was to preserve a friendly correspondence with Elizabeth, who, by former connections and services, had acquired much authority over all ranks of men in Scotland.

She therefore sent Maitland of Lethington to London, in order to pay her compliments to the English queen, and express a desire of future good understanding between them. Maitland was also instructed, to signify Mary's willingness to renounce all present right to the crown of England, provided she was declared, by act of parliament, next heir to the succession, in case the queen should die without offspring. But so great was the jealous prudence of Elizabeth, that she never would hazard the weakening of her authority, by naming a successor, or allow the parliament to interpose in that matter; much less would she make, or permit such a nomination to be made, in favour of a rival queen, who possessed pretensions so plausible to supplant her, and who, though she might verbally renounce them, could easily resume her claim on the first opportunity. Sensible, however, that reason would be thought to lie wholly on Mary's side, as she herself had frequently declared her resolution to live and die a virgin queen, she thenceforth ceased to demand the ratification of the treaty of Edinburgh; and though farther concessions were never made by either princess, they put on all the appearance of a cordial reconciliation and friendship with each other.

Elizabeth saw, that without her interposition, Mary was sufficiently depressed by the mutinous spirit of her own subjects. Having, therefore, no apprehensions from Scotland, she directed her attention to the continent, and became an useful ally to the protestants in France. But in 1564, the negotiation for the marriage of the queen of Scots awakened anew the jealousy of Elizabeth, and roused the zeal of the Scottish reformers. Mary's hand was solicited by the archduke Charles, the emperor's third son; by Don Carlos, heir apparent to the Spanish monarchy; and by the duke of Anjou, her former husband's brother, who succeeded soon after to the crown of France. Either of those foreign alliances would have been alarming to Elizabeth, and to Mary's protestant subjects. She therefore resolved, notwithstanding the arguments of her uncle, the cardinal of Lorrain, to sacrifice her ambition to domestic peace; and as Henry Stuart, lord Darnley, eldest son of the earl of Lenox, was the first British subject whom sound policy seemed to point out to her choice, she determined to make him the partner of her sway.

Darnley was Mary's cousin-german, by lady Margaret Douglas, niece to Henry VIII. and daughter of the earl of Angus, by Margaret, queen of Scotland. He was, after herself, next heir to the English crown. He was also, by his father, a branch of her own family; and would, in espousing her, preserve the royal dignity in the house of

Stuart. He had been born and educated in England, where his father constantly resided, since banished by the prevailing power of the house of Hamilton; and as Elizabeth had often intimated to the queen of Scots, that nothing would so completely allay all jealousy between them, as Mary's espousing an English nobleman, the prospect of the ready approbation of that rival queen was an additional motive for the proposed marriage.

Though Elizabeth had no reason to be displeased with Mary's choice, she thought proper to pretend a disapprobation of it, that she might thus alarm the party in Scotland, that was attached to her interest, and raise, by their means, intestine commotions, which would not only secure her own kingdom from all disturbance on that side, but enable her to become the umpire between the Scottish queen and her contending subjects.

The scheme immediately succeeded in part, and afterward had its full effect. The earl of Murray, and other protestant noblemen, were the dupes of Elizabeth's intrigues. Under pretence of zeal for the reformed religion, because the family of Lenox was believed to adhere to the catholic faith, but in reality to support their own sinking authority, they formed among themselves bonds of confederacy and mutual defence. They entered into a secret correspondence with the English resident, in order to secure Elizabeth's assistance, when it should become necessary and, despairing of being able to prevent the marriage of the queen of Scots by any other means, they concerted measures for seizing Darnley, and carrying him prisoner into England. They failed, however, in the attempt; and Mary, having obtained the general consent of the Scottish nation, and being anxious to bring to a period an affair which had long engaged her heart, and occupied her attention, celebrated her marriage with the captivating young nobleman, who had been the object of their conspiracy.

Conscious that all hopes of reconciliation were now at an end, the associated lords assembled their followers and flew to arms; but, by the vigour and activity of Mary, who appeared herself at the head of her troops, rode with loaded pistols, and endured, with admirable fortitude, all the fatigues of war, the rebels were obliged to fly into England. There they met with a reception very different from what they expected, and which strongly marks the character of Elizabeth. That politic princess had already effectually served her purpose, by exciting in Scotland, through their means, such discord and jealousies, as would, in all probability, long distract and weaken Mary's government. It was now her business to save appearances; and, as the malcontents had failed of success, she thought proper to disavow all connections with them. She would not even grant an audience to the earl of Murray and the abbot of Kilwinning, appointed by the other fugitives to wait on her, till they had meanly consented to acknowledge, in the presence of the French and Spanish ambassadors, who accused her of fomenting the troubles in Scotland by her intrigues, that she had given them no encouragement to take up arms. "You have spoken the truth!" replied she, as soon as they had made this declaration: "I am far from setting an example of rebellion to my own subjects, by countenancing those who rebel against their lawful sovereign. The treason of which you have been guilty is detestable; and, as traitors, I banish you my

presence." Having exculpated herself, as she imagined, by this scene of hypocrisy, she afforded to the rebels a safe refuge in her territories, and privately supplied them with sufficient sums for their maintenance.

In the next year, 1566, Mary joined the confederacy, which had been formed between the courts of France and Spain, for the extermination of the Hugonots in France, the protestants in the Low Countries, and the extinction of the reformed opinions throughout all Europe.

How far Mary was acquainted with the secret designs of the confederates, has been much disputed; but if it be admitted that she was thoroughly informed on the subject, it must follow, that all her seeming liberality of conduct was only a veil of deep dissimulation, to cover purposes of violence and cruelty.

Whatever designs she might have formed against the protestants in general, or the banished lords in particular, they were all speedily frustrated by the murder of David Rizzio, the son of a teacher of music at Turin, and himself a musician. Rizzio had accompanied the Piedmontese ambassador into Scotland, where he gained admittance into the queen's family, by his skill in his profession; and as Mary found him necessary to complete her musical band, she retained him in her service, by permission, after the departure of his master. Shrewd, supple, and aspiring beyond his condition, he quickly crept into the queen's favour; and her French secretary happening to retire into his own country, she promoted Rizzio to that office, which gave him frequent opportunities of approaching her person, and of insinuating himself still father into her good graces. He now began to make a *figure* at court, and to appear as a man of weight and consequence: and he availed himself so well of the access which fortune had procured him, that he was soon regarded, not only as the queen's chief confidant, but even as her minister. To him the whole train of suitors and expectants applied; and, among the rest, Darnley, whose marriage Rizzio promoted, in hopes of acquiring a new patron, while he co-operated with his mistress's wishes.

But this marriage, so natural and so inviting in all its circumstances, disappointed the expectations, both of the queen and her favourite, and terminated in events the most shocking to humanity. Allured by the stature, symmetry, and exterior accomplishments of Darnley, Mary, in her choice, had overlooked the qualities of his mind, which corresponded ill with those of his person. Violent, yet variable in his temper, she could neither by her gentleness bridle his insolent and imperious spirit, nor preserve him, by her vigilance, from rash and imprudent actions. Of mean understanding, but, like most fools, conceited of his own abilities, he was devoid of all gratitude, because he thought no favours equal to his merit; and, being addicted to low pleasures, to drunkenness and debauchery, he was incapable of any true sentiments of love or tenderness. All Mary's fondness and generosity made no lasting impression on such a heart. He became, by degrees, careless of her person, and a stranger to her company. To a woman and a queen, such behaviour was intolerable; but more especially to Mary, who possessed great sensibility of temper, and who, in the first effusions of her love, had taken a pride in exalting her husband beyond measure. She had granted him the title of king, and had joined his name with her own in all public acts. Her

disappointed passion was therefore as violent, when roused into resentment, as her first affection had been strong; and his behaviour appeared ungenerous and criminal, in proportion to the distance she had stooped to raise him, and the honour and consequence to which she had lifted him.

The heart, sore from the wounds and the agitations of unrequited love, naturally seeks the repose, the consolation, and the lenient assuasives of friendship. Rizzio still possessed the confidence of Mary; and as the brutal behaviour of her husband rendered a confidant now more necessary, she seems not only to have made use of her secretary's company and his musical talents, to sooth her disquieted bosom, but to have imprudently shared with him her domestic griefs. To suppose that he also shared her embraces, is to offer an injury to her character, for which history affords no proper foundation. But the assuming vanity of the upstart, who affected to talk often and familiarly with the queen in public, and who boasted of his intimacy in private; led the dark and suspicious mind of Darnley, who, instead of imputing Mary's coldness to his own misconduct, which had so justly deserved it, to ascribe the change in her behaviour, so different from the first and happy days of their union, to the influence of a new passion. The rigid austerity of the Scottish clregy, who could admit of no freedoms, contributed to spread this opinion among the people, ever ready to listen to any slander on the court; and the enemies of the favourite, no less ready to take advantage of any popular clamour, made it a pretence for their unjust and inhuman vengeance.

Rizzio, who had connected his interests with the Roman catholics, was the declared enemy of the banished lords; and, by promoting the violent prosecution against them, he had exposed himself to the animosity of their numerous friends and adherents. Among these were the lords Ruthven and Lindsay, the earl of Morton, and Maitland of Lethington.

While they were ruminating upon their grievances, and the means of redress, the king communicated his resolution to be revenged of Rizzio to lord Ruthven, and implored his assistance and that of his friends toward the execution of his design. Nothing could be more acceptable to the whole party, than such an overture. The murder of the favourite was instantly agreed upon, and as quickly carried into execution. Morton having secured the gates of the palace with 160 armed men, the king, accompanied by the other conspirators, entered the queen's apartment by a private passage, while she was at supper with her natural sister, the countess of Argyle, Rizzio, and a few more of her courtiers. Mary, who was now in the sixth month of her pregnancy, alarmed at such an unusual visit, demanded the reason of the rude intrusion. They answered her by pointing to Rizzio; who immediately apprehending that he was the devoted victim, retired behind the queen's chair, and seized her by the waist, hoping that the respect due to her royal person, would prove some protection to him. But the conspirators had gone too far to be restrained by punctilios. George Douglas, one of their number, laying hold of Darnley's dagger, stuck it in the body of Rizzio; who, screaming with fear and agony, was torn from Mary, and pushed into the antichamber, where he was dispatched with many wounds.

When the first tumult of grief, anger, and astonishment had subsided, Mary took

the most effectual measures to deliver herself from that state of danger and confinement in which she was now placed. She artfully engaged her husband to disown all connection with the conspirators, whom he promised to protect; to deny any concurrence in their crime; nay, to publish a proclamation containing so notorious a falsehood. She became reconciled to the banished lords, and permitted them to be reinstated in their honours and fortunes. The accomplices in Rizzio's murder, who had fled into England on being deserted by Darnley, also applied to her for pardon: and, although she at first refused compliance, she afterward, through the intercession of Bothwell, a new favourite, who was desirous of strengthening his party by the accession of their interest, permitted them to return into their own country.

The hour of Mary's labour now approached; and as it seemed imprudent to expose her person, at such a time, to the insults which she might suffer in a kingdom torn by factions, she left the palace, and made the castle of Edinburgh the place of her residence. There she was safely delivered of a son; and this being a very important event to England, as well as to Scotland, she instantly dispatched sir James Melvil to London with the interesting intelligence. It struck Elizabeth forcibly and by surprise. She had given a ball to her court at Greenwich on the evening of Melvil's arrival, and was displaying all that spirit and gaiety which usually attended her on such occasions; but no sooner was she informed of the prince of Scotland's birth, than all her vivacity left her. Sensible of the superiority her rival had now acquired, she sunk into deep melancholy; she reclined her head upon her hand, the tears trickling down her cheeks, and complained to some of her attendants, that the queen of Scots was mother of a fair son, while she herself was but a barren stock. Next morning, however, at the audience of the ambassador, she resumed her wonted cheerfulness and dissimulation; thanked Melvil for his haste in bringing her such agreeable news, and expressed the most cordial friendship for her sister Mary.

The birth of a son, as Elizabeth foresaw, gave additional zeal, as well as weight to the partizans of the queen of Scots in England; and even men of the most opposite parties began to call aloud for some settlement of the crown. Even the more moderate protestants, soothed by Mary's lenity to her own subjects, concurred with the catholics in supporting her claim. Nor would all the policy and address of Elizabeth have been able to prevent the settlement of the crown on her rival, had not Mary's indiscretions, if not her crimes, thrown her from the very summit of prosperity, and plunged her in infamy and ruin.

John Hepburn, earl of Bothwell, the head of an antient family in Scotland, but a man of profligate manners, and by no means eminent for talents, either civil or military, had distinguished himself by his attachment to the queen; and, since the death of Rizzio, from the custody of whose murderers he had been the chief instrument of releasing her, Mary had loaded him with particular marks of her favour and confidence. Her friends attribute this conduct to her gratitude towards her deliverer; while her enemies, whose number has of late been much diminished, do not scruple to assign for its cause, an unlawful affection for a worthless favourite.

Henry, unable to bear that insignificance into which he had fallen, left the court, and

retired to Glasgow, where he was seized with an unusual distemper. The queen having paid him a visit during his sickness, and discovered great anxiety for his recovery, he accompanied her to Edinburgh, as soon as he could be moved, in order that she herself might be able to attend him, without being absent from her son. He was lodged in a solitary house, called the Kirk of Field, at some distance from the palace of Holyrood house. There he was assiduously attended by Mary, who slept several nights in the chamber under his apartment. But on the ninth of February, about eleven o'clock at night, she left the Kirk of Field, in order to be present at a mask in the palace; and about two o'clock next morning, the house in which the king lay was blown up with gunpowder, and his dead body found in a neighbouring enclosure.

The earl of Bothwell, who was generally accused as one of the authors of this murder, not only found means to avoid a fair and legal trial, but received the government of the castle of Edinburgh, which gave him the entire command of the south of Scotland. Mary was afterward carried off by him, in returning from a visit to her son; she lived with him sometime in a state of supposed violation; though, as soon as he could procure a sentence of divorce from a young lady of distinguished virtue and merit, she gave her hand to this reputed ravisher and regicide, at the request of those very nobles, who afterward made this action a pretext for rebellion.

A considerable body of nobles assembled at Stirling, and entered into an association for the defence of the prince's person, and the punishment of the king's murderers. To guard against the consequences of this league, Mary issued a proclamation, requiring her subjects to take arms, and attend her husband by a day appointed. Finding, however, that the associated lords had collected an army before they were in a condition to face them, the queen and Bothwell fled to Dunbar, where they gathered such strength as emboldened them to leave the town and castle, and advance toward the confederates.

The two armies met at Carberry hill, about six miles from Edinburgh, were nearly equal in numbers, and discovered but little inclination for fighting. The queen, finding herself unable to animate her followers, held a conference with Kircaldy of Grange, one of the chief of the confederates, and put herself, on certain general promises, into their hands.

Bothwell, during the parley, left the field, and was suffered to retire unpursued. He fled to the Orkneys, and subsisted by piracy, till, being captured by the Danes, he perished miserably in prison, after a long confinement. Meanwhile, the queen of Scots was treated with the greatest indignity, confined in the castle of Lochlevin, and compelled, by the threats of lord Lindsay, to resign her crown, appoint the earl of Murray regent, and consent that her infant son should be proclaimed king, by the name of James VI.

A parliament, summoned by the earl of Murray, declared this resignation valid, and her imprisonment lawful, while it recognised his election to the office of regent; and, being a man of vigour and abilities, he applied himself successfully in reducing the kingdom to obedience.

In May, next year, Mary escaped from her confinement, and soon found herself attended by a powerful army. Her resignation of the crown, which she declared to be extorted from her by fear, was pronounced to be illegal and void, by a council of the nobles and chief men of her party; and an association was formed for her defence, and subscribed by nine earls, nine bishops, eighteen lords, and many gentlemen of distinction. Murray, however, soon took the field, with an army far inferior to Mary's in number; and a battle was fought at Langside, near Glasgow, which was decisive in his favour, and was followed by the total ruin of the queen's party.

Unwilling to behold the destruction of her friends, Mary fled with precipitation from the scene of action, and soon after, determining to trust the generosity of her cousin Elizabeth, entered the English territories. Generosity had, however, but little influence on the heart of Elizabeth, who hated Mary for her beauty, for her religion, and her pretensions to the crown. Mary was, therefore, detained a prisoner, removed from one place of security to another, arraigned before commissioners, who are said to have received forged documents of her guilt, and at length delivered from this tedious captivity, by a death still more cruel and unjust than the captivity itself.

Scotland, in the mean time, was governed by a succession of regents. Murray, who was one of the most violent enemies of Mary, and died by the hand of an assassin, in 1570. Lenox, the father of Darnley, who was slain by some of the queen's party, in 1572. Marre, who died of melancholy, at the distracted state of his country: and Morton, who perished, as will be hereafter related, on the scaffold.

After these events, both Scotland and England enjoyed some years of tranquillity. Elizabeth had now an opportunity to cultivate the arts of peace, and increase the prosperity of her own kingdom, by taking advantage of the effects which civil tyranny and theological bigotry were producing in the dominions of her neighbours. She supplied the Hugonots with considerable sums of money, notwithstanding her negotiations with the court of France.

Elizabeth had given protection to all the Flemish exiles, who took shelter in her dominions; and as many of these were the most industrious inhabitants of the Netherlands, then so celebrated for its manufactures, they brought along with them several useful arts, hitherto unknown, or but little cultivated in England. The queen had also permitted the Flemish privateers to enter into English harbours, and there dispose of their prizes. But, on the remonstrance of the Spanish ambassador, she withdrew that liberty; a measure, which, in the issue, proved extremely prejudicial to the interest of Philip.

In 1575, the revolted provinces were reduced to so great extremity, that they saw the necessity of foreign assistance, in order to preserve them from final ruin; and they sent a solemn embassy to Elizabeth, their most natural ally, offering her the sovereignty of Holland and Zealand, if she would employ her power in their defence. But that princess, though inclined, by many strong motives, to accept of so liberal an offer, refused, in positive terms, the sovereignty proffered her; but told the ambassador, That, in return for the good-will which the prince of Orange and the States had shewn her, she would endeavour to mediate an agreement for them, on the best terms possible,

She accordingly dispatched sir Henry Cobham to Philip, who took her mediation in good part, but no accommodation ensued. Three years after, however, she judged it prudent to change her measures, entered into alliance with the provinces, sent them over a sum of money, and after a body of troops.

Till the year 1582, England continued to enjoy tranquillity. But the prospect now began to be overcast; and Elizabeth saw dangers gradually multiply on her, from more than one quarter. The earl of Lenox, cousin-german to the young king of Scotland, and captain Stewart, of the house of Ochiltree, afterward earl of Arran, had found means to detach James from the English interest; and, by their intrigues, the earl of Morton, who, during his whole regency, had preserved that kingdom in strict alliance with Elizabeth, was brought to the scaffold, as an accomplice in the murder of the late king.

A body of the Scottish nobility, however, dissatisfied with the new administration, which was entirely directed by Lenox and Arran, formed a conspiracy, probably with the concurrence of Elizabeth, for seizing the person of the king, at the castle of Ruthven, the seat of the earl of Gowrie; and the design being kept secret, succeeded without any opposition. James, who was about 12 years of age, wept, when he found himself detained a prisoner; but no compassion was shown him. "Mind not his tears," said the master of Glamis: "better that boys should weep than bearded men." The king was obliged to submit to the present necessity; to pretend an entire acquiescence in the conduct of the conspirators, and to acknowledge the detention of his person to be an acceptable service. Arran was confined a prisoner in his own house, and Lenox retired into France, where he soon after died.

But the affairs of Scotland remained not long in this situation. James, impatient of restraint, made his escape from his keepers; and flying to St. Andrew's, summoned his friends and partizans to attend him. The earls of Argyle, Marshal, Montrose, and Rothes, hastened to pay their duty to their sovereign; and the opposite party, finding themselves unable to resist so powerful a combination, took shelter in England. The earl of Arran was recalled to court: a new attempt to disturb the government was defeated; the earl of Gowrie, its reputed author, was brought to the block; and severe laws were passed against the presbyterian clergy, who had applauded the Raid of Ruthven, as the late conspiracy was called.

While these things were transacting in Scotland, the king of Spain, though he had not yet come to an open rupture with Elizabeth, sent, in the name of the pope, a body of 700 Spaniards and Italians into Ireland, in order to retaliate for the assistance which she gave to his rebellious subjects in the Low Countries. But the invaders, though joined by many of the discontented Irish, were all cut off to a man, by lord Grey, the queen's deputy, and 1500 of the rebels were hanged; a severity which gave great displeasure to Elizabeth.

When the English ambassador, at the court of Madrid, complained of this invasion, he was answered by like complaints of the piracies of Francis Drake, a bold navigator, who had passed into the South Sea by the straits of Magellan, and, attacking the

Spaniards in those parts, where they least expected an enemy, had taken many rich prizes, and returned home safely by the Cape of Good Hope, in September, 1580. As he was the first Englishman who had circumnavigated the globe, his name became celebrated on account of so hazardous and fortunate an adventure; and the queen, who loved valour, and hoped to share in the spoil, conferred on him the honour of knighthood, and accepted of a banquet from him on board the ship which had performed so memorable a voyage. She caused, however, part of the booty to be restored, in order to appease the catholic king.

But Elizabeth's dangers from abroad might have been regarded as of small importance, had her own subjects been united at home. Unhappily, that was not the case: the zeal of the catholics, excited by constraint rather than persecution, daily threatened her with an insurrection. Not satisfied with incessant outcries against her severity towards the queen of Scots, and against the court of High Commission (an ecclesiastical tribunal, erected by Elizabeth, for taking cognizance of non-conformists, and which was certainly too arbitrary), the Romish priests, especially in the foreign seminaries for the education of English students of the catholic communion, endeavoured to persuade their disciples, that it would be a meritorious action to take away her life. This opinion was imbibed by William Parry, an English gentleman, and a convert to the catholic faith. The pope himself exhorted him to persevere, and granted him, for his encouragement, a plenary indulgence, and remission of his sins. Though still agitated with doubts, he came over to England, with an intention of executing his bloody purpose. But happily his irresolution continued; and he was at last betrayed by one Nevil, of the family of Westmoreland, to whom he had communicated his design. Being thrown into prison, he confessed his guilt; received sentence of death, and suffered the punishment directed by the law for his treasonable conspiracy.

Anthony Babington, also, a young gentleman of Derbyshire, instigated by John Ballard, a popish priest, of the seminary of Rheims, engaged in a conspiracy against the life of his sovereign, as a necessary prelude to the deliverance of the queen of Scots, and the re-establishment of the catholic religion in England; and so sure did he think himself of success, and so meritorious his undertaking, that, in order to perpetuate the memory of it, he caused a picture to be drawn, in which he was represented standing amidst his six confederates, with a motto, expressing that their common danger was the bond of their fidelite. Happily, the plot was discovered, by the vigilance of secretary Walsingham; and Babington, with 13 others, among whom was Ballard, suffered death for their treasonable design.

The scene that followed was new and extraordinary. On the trial of the conspirators, it is said to have appeared, that the queen of Scots, who had held a correspondence with Babington, had encouraged him in his enterprize; and it was resolved, by Elizabeth and her ministers, to bring Mary also to a public trial, as being accessary to the conspiracy. Her papers were accordingly seized, her principal domestics arrested, and her two secretaries sent prisoners to London. After the necessary information had been obtained, 40 commissioners, appointed under the great seal, together with

five of the judges, were sent to Fotheringay castle, where Mary was now confined, to hear and decide this great cause.

An idea so repugnant to majesty, as being arraigned for treason, had not once entered the mind of the queen of Scots, though she no longer doubted but her destruction was determined on; nor had the strange resolution yet reached her ears, in the solitude of her prison. She received the intelligence, however, without emotion or astonishment; and she protested, in the most solemn manner, that she never countenanced any attempt against the life of Elizabeth, at the same time that she refused to acknowledge the jurisdiction of her commissioners. "I came into England," said she, "an independent sovereign, to implore the queen's assistance, not to subject myself to her authority; nor is my spirit so broken by misfortunes, or so intimidated by present dangers, as to stoop to any thing unbecoming the majesty of a crowned head, or that will disgrace the ancestors from which I am descended, and the son to whom I shall leave my throne. If I must be tried, princes alone can be my peers. The queen of England's subjects, how noble soever their birth may be, are of a rank inferior to mine. Ever since my arrival in this kingdom, I have been confined as a prisoner. Its laws never afforded me protection; let them not now be perverted, in order to take away my life."

Mary, however, was at last persuaded to appear before the commissioners, "to hear and to give answer to the accusations which should be offered against her," though she still refused to acknowledge the jurisdiction of the court. The chancellor endeavoured to vindicate its authority, by pleading the supreme jurisdiction of the English laws over every one who resided in England. The lawyers of the crown opened the charge against the queen of Scots; and the commissioners, after hearing her defence, and adjourning to Westminster, pronounced sentence of death upon that unfortunate princess, and confirmed it by their seals and subscriptions. The chief evidence against Mary arose from the declaration of her secretaries; for no proof could otherwise be produced, that the letters from Babington were delivered into her hands, or that any answer was returned by her direction: and the testimony of two witnesses, even though men of character, who knew themselves exposed to all the rigours of imprisonment, torture, and death, if they refused to give any evidence which might be required of them, was by no means conclusive. In order to screen themselves, they might throw the blame on her; but they could discover nothing to her prejudice, without violating that oath of fidelity, which they had taken, in consequence of their office; and their perjury, in one instance, rendered them unworthy of credit in another. Besides, they were not confronted with her, though she desired that they might, and affirmed, that they would never, to her face, persist in their evidence. But the condemnation of the queen of Scots, not justice, was the object of this unprecedented trial; and the sentence, after many hesitations and delays, was carried into execution.

Never did Mary appear so great, as in this last scene of her life; she was not only tranquil, but intrepid and magnanimous. When sir Andrew Melvil, the master of her household, who had been excluded for some weeks from her presence, was per-

mitted to take his last farewel, he burst into tears; bewailing the condition of a mistress whom he loved, as well as his own hard fate, in being appointed to carry into Scotland the news of such a mournful event, as the catastrophe that awaited her. "Weep not, good Melvil," said she, "there is at present greater cause for rejoicing. Thou shalt this day see Mary Stuart delivered from all her cares, and such an end put to her tedious sufferings, as she has long expected. But witness, that I die constant in my religion, firm in my fidelity towards Scotland, and unchanged in my affection to France. Commend me to my son; tell him I have done nothing injurious to his kingdom, to his honours, or to his rights; and God forgive all those who have thirsted without cause for my blood."

On ascending the scaffold, she began, with the aid of her women to take off her veil and upper garments; and the executioner, rudely endeavouring to assist them, she gently checked him, and, smiling, said, "I have not been accustomed to undress before so many spectators, nor to be served by such valets!" and soon after laid her head on the block, with calm but undaunted fortitude

Elizabeth, when informed of Mary's execution, affected the utmost surprise and concern. Sighs, tears, lamentations, and weeds of mourning, were all employed to display the greatness of her sorrow. She even undertook to make the world believe, that the queen of Scots, her dear sister and kinswoman, had beeen put to death without her knowledge, and contrary to her inclination; and, to complete this farce, she commanded Davison, her secretary, to be thrown into prison, under pretence that he had exceeded his commission, in dispatching the fatal warrant; which, although she had signed, she never meant to carry into execution.

This hypocritical disguise was assumed chiefly to appease the young king of Scotland, who seemed determined to employ the whole force of his dominions, in order to revenge his mother's death. He recalled his ambassador from England, refused to admit the English envoy into his presence, and with difficulty condescended to receive a memorial from the queen. Every thing bore the appearance of war. Many of his nobility instigated him to take up arms immediately, and the catholics recommended an alliance with Spain.

Elizabeth saw the danger of such a league. After allowing James some decent interval to vent his grief and anger, she employed her emissaries to set before him every motive of hope or fear, which might induce him to live in amity with her; and these, joined to the queen's dissimulation, and the pacific disposition of that prince, prevailed over his resentment: he fell gradually into a good understanding with the court of England.

While Elizabeth was thus ensuring the tranquillity of her kingdom from the attempts of her nearest neighbour, she was not inattentive to more distant dangers. Hearing that Philip was secretly preparing that prodigious armament, which had for its object no less than the entire conquest of England, she sent sir Francis Drake with a fleet to intercept his supplies, to pillage the coasts of his dominions, and destroy his shipping: and that gallant commander, besides other advantages, was so successful as to burn,

in the harbour of Cadiz, an hundred vessels laden with ammunition and naval stores. About the same time, Thomas Cavendish, a private adventurer, launched into the South Sea in three small ships; committed great depredations on the Spaniards in those parts; took many rich prizes; and returning by the Cape of Good Hope, entered the Thames in a kind of triumph.

By these fortunate enterprizes, the English seamen learned to despise the large unwieldy ships of the enemy, in which chiefly they placed their hopes of success. The naval magazines of Spain were destroyed, and means were taken to prevent Philip from being able suddenly to repair the loss, by an artificial run upon the bank of Genoa, where he expected a large loan; a measure which was conducted by an English merchant, in conjunction with his foreign correspondents, and does great honour to the sagacity of the English ministry.

The sailing of the Armada was retarded for 12 months; and the queen had thereby leisure to take more effectual measures against that formidable fleet and army, intended for the invasion of her kingdom.

Meanwhile, Philip, whose resolution was finally taken, determined to execute his ambitious project with all possible force and effect. No longer secret in his purpose, every part of his European dominions resounded with the noise of armaments, and the treasures of both Indies were exhausted in vast preparations for war. In all the ports of Sicily, Naples, Spain, and Portugal, artizans were employed in building vessels of uncommon size and force; naval stores were bought up at great expence; provisions amassed; armies levied, and quartered in the maritime provinces; and plans laid for such an embarkation as had never before appeared on the ocean. The military preparations in Flanders were no less formidable. Troops from all quarters were every moment assembling to reinforce the duke of Parma; who employed all the carpenters he could procure, in building flat-bottomed vessels, to transport into England an army of 3500 men, assembled in the Netherlands. This fleet of transports was intended to join the grand Armada, vainly denominated invincible, which was to set sail from Lisbon; and after chasing out of the way all the Flemish and English vessels, which it was supposed would make little, if any resistance, to enter the Thames; to land the whole Spanish army in the neighbourhood of London, under the command of the duke of Parma, and other experienced officers; and to decide, at one blow, the fate of England. The success of the enterprize was never called in question; so that several Spanish and Italian noblemen embarked as volunteers, to share in the glory of so great a conquest.

Elizabeth was apprised of all these preparations. She had foreseen the invasion; nor was she dismayed at the aspect of that power, by which all Europe apprehended she must be overwhelmed. Her force was indeed very unequal to Philip's all the sailors in England did not then exceed 15,000 men: the royal navy consisted only of 28 sail, many of which, were of small size, and none of them exceeded the bulk of our largest frigates. But the city of London fitted out 30 vessels to reinforce this small navy; the other sea-port towns a proportional number; and the nobility and gentry hired, armed, and manned, 43 vessels at their own charge. Lord Howard of Effingham, a man of

courage and capacity, was appointed admiral, and took on him the chief command; Drake, Hawkins, and Frobisher, the most renowned seamen in Europe, served under him. The principal fleet was stationed at Plymouth; and a smaller squadron, commanded by lord Seymour, lay off Dunkirk, in order to intercept the duke of Parma.

The land forces of England were more numerous than those of the enemy, but inferior in discipline and experience. An army of 20,000 men was disposed in different bodies along the south coast, with orders to retire backwards, and waste the country, if they could not prevent the Spaniards from landing; 22,000 foot and 1000 horse, under the command of the earl of Leicester, was stationed at Tilbury, in order to defend the capital; and the principal army, consisting of 34,000 foot, and 2000 horse commanded by lord Hundson, was reserved for guarding the queen's person, and appointed to march whithersoever the enemy should appear.

These armies, though all the Spanish forces had been able to land, would possibly have been sufficient to protect the liberties of their country. But as the fate of England, in that event, must depend on the issue of a single battle, all men of serious reflection entertained the most awful apprehensions of the shock of at least 50,000 veterans, commanded by experienced officers, under so consummate a general as the duke of Parma.

The queen alone was undaunted: she issued all her orders with tranquillity, animated her people to a steady resistance, and employed every resource, which either her domestic situation or her foreign alliances could afford her. She even appeared on horseback in the camp at Tilbury; and riding through the lines, discovered a cheerful and animated countenance, exhorting the soldiers to remember their duty to their country and their religion, and professed her intention, though a woman, to lead them herself into the field against the enemy, and rather perish in battle than survive the ruin and slavery of her people. "I have but the weak and feeble arm of a woman; but I have the heart of a king, and of a king of England too!" The heroic spirit of Elizabeth communicated itself to the army, and every man resolved to die rather than desert his station,

Meanwhile, the Spanish Armada, after various obstructions, appeared in the Channel. It consisted of 130 vessels, of which near 100 were galleons, and carried about 20,000 land forces. Effingham, who was informed of its approach by a Scotch pirate, saw it, just as he could get out of Plymouth Sound, coming full sail towards him, disposed in the form of a crescent, and stretching the distance of seven miles, from the extremity of one division to that of the other. The lofty masts, the swelling sails, and the towering prows of the Spanish galleons, seem impossible to be justly described by the historians of that age, without assuming the language of poetry. Not satisfied with representing the Armada as a spectacle infusing equal terror and admiration into the minds of all beholders, and as the most magnificent that had ever appeared on the main, they assert, That, although the ships bore every sail, it yet advanced with a slow motion, as if the ocean had groaned with supporting, and the winds been tired with impelling so enormous a weight. The English admiral at first

gave orders not to come to close fight with the Spaniards, on account of the size of their ships, and the number of soldiers on board; but a few trials convinced him that even in close fight, the size of the Spanish ships was of no advantage to the enemy. Their bulk exposed them to the fire, while their cannon, placed too high, shot over the heads of the English men of war.

Every thing conspired to the ruin of this vast armament. Sir Francis Drake took the great galleon of Andalusia, and a large ship of Biscay, which had fallen behind the rest; while the nobility and gentry hastened out with their vessels from every harbour, and reinforced Effingham, who filled eight of his smaller ships with combustibles, and sent them into the midst of the enemy. The Spaniards fled with disorder and precipitation: the English commanders fell upon them while in confusion; and, besides doing great damage to their whole fleet, took 12 ships.

It was now evident that the purpose of the Armada was utterly frustrated; and the duke of Parma, whose vessels were calculated for transporting soldiers, not for fighting, positively refused to leave the harbour, while the English were masters of the sea. The Spanish admiral, after many unsuccessful rencounters, prepared therefore to make his way home; but as the wind was contrary to his return through the Channel, he resolved to make the circuit of the island. The English fleet followed him for some time; and had not their ammunition fallen short, through the negligence of the public officers in supplying them, they had obliged the Armada to surrender at discretion.

Such a conclusion of that vain-glorious enterprize must have been truly illustrious to the English, and the event was scarce less fatal to the Spaniards. The Armada was attacked by a violent storm in passing the Orkneys; and the ships having already lost their anchors, were obliged to keep at sea, while the mariners, unaccustomed to hardships, and unable to manage such unwieldy vessels, allowed them to drive on the western isles of Scotland, or on the coast of Ireland, where they were miserably wrecked. Not one half of the fleet returned to Spain, and a still smaller proportion of the soldiers and seamen: yet Philip, whose command of temper was equal to his ambition, received, with an air of tranquillity, the news of so humbling a disaster. "I sent my fleet," said he, "to combat the English, not the elements. God be praised that the calamity is not greater."

The leading characteristics of Elizabeth's administration were economy and vigour. By a strict attention to the first, she was able to maintain a magnificent court, and to support the persecuted protestants in France and in the Low Countries, without oppressing her people, or involving the crown in debt; and by a spirited exertion of the second, she humbled the pride of Spain, and gave stability to her throne, in spite of all the machinations of her enemies. After informing her parliament of the necessity of continuing the war against Philip, and how little she dreaded the power of that monarch, even though he should make a greater effort than that of his Invincible Armada, she concluded thus: "But I am informed, that, when he attempted this last invasion, some upon the sea-coast forsook their towns, fled up higher into the country, and left all naked and exposed to his entrance; but I swear unto you, by God! if I

know those persons, or may know of any that shall do so hereafter, I will make them feel what it is to be fearful in so urgent a case."

Elizabeth's frugality in the administration of government seems less, however, to have proceeded from lenity to her people, than from a fear of bringing herself under the power of the commons, by the necessity of soliciting larger supplies, and thereby endangering her royal prerogative, of which she was always remarkably jealous, and which she exercised with a high hand. Numberless instances of this occur during her reign. Besides erecting the court of high commission, which was vested with almost inquisitorial powers, and supporting the arbitrary decrees of the Star Chamber, she granted to her servants and courtiers patents for monopolies, which put invincible restraints upon all commerce, industry, and emulation in the arts: and enabled those who possessed them, to raise commodities to what price they pleased. Salt, in particular, was raised from sixteen-pence a bushel to fourteen or fifteen shillings, and several other articles in proportion. Almost all the necessaries of life were thus monopolized, which made a certain member cry out ironically, when the list was read over in the house, "Is not bread among the number."

These grievances were frequently complained of in parliament, but more especially by the puritans, a religious sect, who maintained, as the name imports, that the church of England was not yet sufficiently purged from the errors of popery, and who carried the same bold spirit that dictated their theological opinions into their political speculations. But such complaints were made at the peril of the members, who were frequently committed to custody for undue liberty of speech; and all motions to remove these enormous grievances were suppressed, as attempts to invade the royal prerogative. The queen herself, by messages to the house, frequently admonished the commons, "Not to meddle with what in no wise belonged to them, (matters of state and religion,) and what did not lie within the compass of their understandings;" and she warned them, "since neither her commands, nor the example of their wiser brethren (those devoted to the court), could reclaim their audacious, arrogant, and presumptuous folly, that some other species of correction must be found for them."

These messages were patiently received by the majority of the house. Nay, it was asserted, "That the royal prerogative was not to be canvassed, nor disputed, nor examined, and did not even admit of any limitation; that absolute princes, such as the sovereigns of England, were a species of divinity; that it was in vain to attempt tying the queen's hands by laws or statutes, since, by her dispensing power, she could loosen herself at pleasure!"

But the puritans, who alone possessed any just sentiments of freedom, and who employed all their industry to be elected into parliament, still hazarded the utmost indignation of Elizabeth, in vindicating the natural rights of mankind. They continued to keep alive that precious spark of liberty which they had rekindled; and which, burning fiercer from confinement, broke out into a blaze under the two succeeding reigns, and agitated, but not smothered by opposition, consumed the church and monarchy; from whose ashes, like the fabled phœnix, singly to arrest the admiration of ages, sprung our present glorious and happy constitution.

Among the subjects which Elizabeth prohibited the parliament from taking into consideration, was the succession to the crown. But as all danger from a rival claim had expired with the queen of Scots, a motion was made by Peter Wentworth, a puritan, for petitioning her majesty to fix the succession; which, though in itself sufficiently respectful, incensed the queen to such a degree, that she ordered Wentworth to be sent to the Tower, and all the members who seconded him to the Fleet. Her malignity against Mary seems to have settled upon her son James; for she not only continued to avoid acknowledging him as her successor, though a peaceable and unaspiring prince, but refused to assist him in suppressing a conspiracy of some catholic noblemen, in conjunction with the king of Spain, their common enemy. She endeavoured to keep him in perpetual dependence, by bribing his ministers, or fomenting discontents among his subjects; and she appears to have been at the bottom of a conspiracy, formed by the earl of Gowrie, for seizing the king's person; though not, as commonly supposed, with a design to take away his life.

Meanwhile, Elizabeth's attention was much occupied by the affairs of Ireland, where the English sovereignty had hitherto been little more than nominal. The Irish princes and nobles, divided among themselves, readily paid the exterior marks of obedience to a power, which they were not able to resist; but as no durable force was ever kept on foot to retain them in submission, they still relapsed into their former state of barbarous independency. Other reasons conspired to prevent a cordial union. The small army, which was maintained in Ireland, never being regularly paid, the officers were obliged to give their soldiers the privilege of free quarters upon the natives. Rapine and insolence inflamed the hatred which prevailed between the conquerors and the conquered, and that, together with the old opposition of manners, laws, and interests, was now heightened by religious animosity, the Irish being still catholics, and in a great measure savages.

The romantic and impolitic project of the English princes for subduing France, occasioned this inattention to the affairs of Ireland; a conquest pregnant with many solid advantages, and infinitely more suited to their condition. Elizabeth early saw the importance of that island, and took several measures for reducing it to a state of greater order and submission. Besides furnishing her deputies, or governors of Ireland, with a stronger force, she founded an university at Dublin, with a view of introducing arts and learning into that capital and kingdom, and of civilizing the barbarous manners of the people. But, unhappily, sir John Perrot, in 1585, being then lord deputy, put arms into the hands of the inhabitants of Ulster, in order to enable them, without the assistance of the English government, to repress the incursions of the Scottish islanders; and Philip II. having, about the same time, engaged many of the Irish gentry to serve in his armies in the Low Countries, Ireland, thus provided both with officers and soldiers, with discipline and arms, was thenceforth able to maintain a more regular war, and became more formidable to England.

Hugh O'Neale, the head of a potent clan, had been raised by the queen to the dignity of earl of Tyrone; but preferring the pride of barbarous licence and dominion

to the pleasures of opulence and tranquillity, he secretly fomented the discontents of his countrymen, and formed the project of rendering himself independent. Trusting, however, to the influence of his deceitful oaths and protestations, as he was not yet sufficiently prepared, he surrendered himself into the hands of sir William Russel, who had been appointed the queen's deputy in Ireland; and, being dismissed, in consequence of these protestations of his pacific disposition, and retiring into his own country, he embraced the daring resolution of rising in open rebellion, and of relying no longer on the lenity and imprudence of his enemies. His success exceeded his most sanguine hopes. After amusing sir John Norris, sent over to reduce him to obedience, with treacherous promises and proposals of accommodation, by means of which the war was spun out for some years, he defeated the English army, under sir Henry Bagnal, who had succeeded to the command on the death of the gallant Norris, and who was left dead on the field, together with 1500 men.

This victory, which mightily animated the courage of the Irish, and raised the reputation of Tyrone, who now assumed the name of Deliverer of his Country, made Elizabeth sensible of the necessity of pushing the war by vigorous measures. And she appointed, at his own request, her reigning favourite, the earl of Essex, ever ambitious of military fame, governor of Ireland, under the title of lord lieutenant; vested him with powers almost unlimited; and, in order to ensure him success against the rebels, she levied an army of 16,000 foot and 1300 horse. But Essex, unacquainted with the country, and misled by interested counsels, disappointed the expectations of the queen and nation; and fearing the total alienation of her affections, by the artifices of his enemies, he embraced the rash resolution of returning home, expressly contrary to her orders, and arrived at court before any one was apprized of his intentions.

The sudden and unexpected appearance of her favourite, whose impatience carried him to her bed-chamber, where he threw himself at her feet, and kissed her hand, at first disarmed the resentment of Elizabeth. She was incapable, in that moment of soft surprize, of treating him with severity: hence Essex was induced to say, on retiring, he thanked God, that though he had suffered much trouble and many storms abroad, he found a sweet calm at home.

Elizabeth, however, had no sooner leisure for recollection, than her displeasure returned. All Essex's faults again took possession of her mind, and she thought it necessary, by some severe discipline, to subdue that haughty imperious spirit, which, presuming on her partiality and indulgence, had ventured to disregard her instructions, and disobey her commands. She ordered him to be confined; and, by a decree of the privy council, he was deprived of all his employments, except that of Master of the Horse, and sentenced to remain a prisoner during her majesty's pleasure.

Humbled by this sentence, but still trusting to the queen's tenderness, Essex wrote to her, that he kissed her majesty's hand, and the rod with which she had corrected him, but that he could never recover his wonted cheerfulness, till she deigned to admit him to that presence, which had ever been the chief source of his happiness and

enjoyment. He had now resolved, he added, to make amends for his past errors; to retire into a rural solitude, and say with Nebuchadnezzar, "Let my dwelling be with the beasts of the field, let me eat grass as an ox, and be wet with the dew of heaven, till it shall please the queen to restore me to my understanding.

Elizabeth, who had always declared to the world, and even to Essex himself, that the purpose of her severity was to correct, not to ruin him, was much pleased with these sentiments; and replied, that she heartily wished his actions might correspond with his expressions. Every one expected, that he would soon be restored to his former degree of credit and favour; nay, as is usual in reconciliations proceeding from tenderness, that he would acquire an additional ascendant over his fond mistress. But Essex's enemies, by whom she was continually surrounded, found means to persuade the queen, that his lofty spirit was not yet sufficiently subdued; and, as a farther trial of his submission, she refused to renew a patent which he possessed for a monopoly of sweet wines. She even accompanied her refusal with an insult. "An ungovernable beast," added she, "must be stinted in its provender."

Essex, who had with difficulty restrained his proud heart so long, and whose patience was now exhausted, imagining, from this fresh instance of severity, that the queen was become inexorable, gave full rein to his violent disposition, and threw off all appearance of duty and respect. Already high in the public favour, he practised anew every art of popularity. He indulged himself in great liberties of speech; particularly in regard to the queen's person, which was still an object of her vanity, and on which she allowed herself to be complimented, though approaching to her 70th year. And what was, if possible, still more mortifying to Elizabeth, he made secret application to the king of Scotland, her heir and presumptive successor, offering to extort an immediate declaration in his favour.

But James, although sufficiently desirous of securing the succession of England, and though he had negotiated with all the courts of Europe, in order to procure support to his hereditary title, did not approve of the violent means which Essex proposed to employ for that end. His natural timidity of temper made him averse against any bold expedient, and he was afraid, if the attempt should fail, that Elizabeth might be induced to take some extraordinary step to his prejudice. Essex, however, continued to make use of that prince's claim, as a colour for his rebellious projects. A select council of malcontents was formed; and it was agreed to seize the palace, to oblige the queen to remove all Essex's enemies, to call a parliament, and to settle the succession, together with a new plan of government.

Elizabeth had some intimation of these desperate resolutions. Essex was summoned to attend the council; but he received a private note, which warned him to provide for his safety. He concluded that all his conspiracy was discovered: excused himself to the council, on account of a pretended indisposition; and, as he judged it impracticable to seize the palace without more preparations, he sallied forth, at the head of about 200 followers, and attempted to raise the city. But the citizens, though much attached to his person, shewed no disposition to join him. In vain did he tell them,

that his life was in danger, and that England was sold to the Spaniards. They flocked about him in amazement, but remained silent and inactive; and Essex, despairing of success, retreated with difficulty to his own house. There he seemed determined to defend himself to the last extremity, and rather die, like a brave man, with his sword in his hand, than ignominiously by the hand of the executioner; but, after some parley, his resolution failed him, and he surrendered at discretion.

Orders were immediately given for the trial of Essex, and the most considerable of the other conspirators. Their guilt was too notorious to admit of any doubt, and sentence was pronounced accordingly. The queen, who had behaved with the utmost composure during the insurrection, now appeared all agitation and irresolution. The unhappy condition of Essex awakened her fondness afresh: resentment and affection shared her breast by turns; the care of her own safety, and concern for her favourite. She signed the warrant for his execution, she countermanded it; she again resolved on his death, she felt a new return of tenderness. She waited impatiently for the intercession of a friend, to whom she might yield that forgiveness, which of herself she was ashamed to grant. No such friend appeared; and Elizabeth, imagining this ungrateful neglect to proceed from Essex's haughtiness, from a pride of spirit, which disdained to solicit her clemency, at last permitted the sentence to be put in execution. He was privately beheaded in the Tower, to prevent the danger of a popular insurrection

Such was the untimely fate of Robert d'Evreux, earl of Essex Brave, generous, affable, incapable of disguising his own sentiments, or misrepresenting those of others, he possessed the rare felicity of being at once the favourite of his sovereign, and the darling of the people. But this so fortunate circumstance proved the cause of his destruction. Confident of the queen's partiality towards him, as well as of his own merit, he treated her with a haughtiness, which neither her love nor her dignity could bear; and, when his rashness, imprudence, and violence, had exposed him to her resentment, he hoped, by means of his popularity, to make her submit to his imperious will. But the attachment of the people to his person was not strong enough to shake their allegiance to the throne. He saw his mistake, though too late; and his death was accompanied with many circumstances of the most humiliating penitence. But his remorse unhappily took a wrong direction. It made him ungenerously publish the name of every one to whom he had communicated his treasonable designs. He debased his character, in attempting to make his peace with heaven; and, after all, it is much to be questioned, whatever he might imagine in those moments of affliction, whether, in bewailing his crimes, he did not secretly mourn his disappointed ambition, and in naming his accomplices hope to appease his sovereign. But however that might be, it is sincerely to be lamented, that a person, possessed of so many noble virtues, should have involved, not only himself, but many of his friends in ruin.

The king of Scotland, who had a great regard for Essex, though he rejected his violent counsels, no sooner heard of his criminal and unsuccessful enterprize, than he sent two ambassadors to the court of England, in order to intercede for his life, as well as to congratulate the queen on her escape from the late insurrection and conspiracy.

But these envoys arrived too late to execute the first part of their instructions, and therefore prudently concealed it. Elizabeth received them with all possible marks of respect; and, during their residence in England, they found the disposition of men as favourable as they could wish to the Scottish succession. They even entered into a private correspondence with secretary Cecil, son of the late lord treasurer Burleigh, whose influence, after the fall of Essex, was uncontrouled. That profound courtier thought it prudent to acquire, by this policy, the confidence of a prince, who might soon become his master; and James, having gained the man whose opposition he had hitherto chiefly feared, waited in perfect security, till time should bring about that event, which would open his way to the English throne.

While these things were transacting in Britain, lord Mountjoy, who succeeded Essex in Ireland, had restored the queen's authority in that kingdom. He defeated the rebels near Kinsale though supported by 6000 Spaniards, whom he expelled the island; and many of the chieftains, after skulking for some time in the woods and morasses, submitted to mercy, and received such conditions as the deputy was pleased to prescribe. Even Tyrone petitioned for terms; which being denied him, he was obliged to throw himself on the queen's clemency.

But Elizabeth was now incapable of receiving any pleasure from this fortunate conclusion of the war, which had long occupied her council, exhausted her treasury, and disturbed her domestic peace. Though in her 70th year, she had hitherto enjoyed a good state of health; but the infirmities of old age at length began to steal upon her, and wi them that depression of spirit, by which they are naturally accompanied. She had no offspring to inherit her extensive dominions; no son, no daughter, to whom she could transmit her sceptre, and the glories of her illustrious reign; no object of affection to alleviate her sorrows, or on whom she could repose her increasing cares. There lay the source of her most dangerous disease. A deep melancholy, which nothing could dissipate, and which rendered her dead to every human satisfaction had settled on her mind.

Essex, as we have already observed, had been consigned to the executioner solely on a suspicion that the obstinacy and haughtiness of his spirit, still disdaining submission, would not permit him to implore the queens clemency. His criminal designs would have been forgiven, as the extravagancies of a great soul; but his want of confidence in the affection of an indulgent mistress, or his sullen contempt of her mercy, were unpardonable. His enemies knew it: they took advantage of it, to hasten his destruction; and his friends were afraid to interpose, lest they should be represented as the abettors of his treason. But no sooner was the fatal blow struck, than, fear and envy being laid asleep, his merits were universally confessed. Even his sentiments of duty and loyalty were extolled. Elizabeth became sensible she had been deceived, and lamented her rashness, in sacrificing a man on whose life her happiness depended. His memory became daily more dear to her, and she seldom mentioned his name without tears. Other circumstances conspired to heighten her regret. Her courtiers, having no longer the superior favour of Essex to dread, grew less respectful and assiduous in their attendance, and all men desirous of preferment seemed to look forward to her.

successor. The people caught the temper of the court: the queen went abroad without the usual acclamations. And, as a farther cause of uneasiness, she had been prevailed on, contrary to her most solemn declarations and resolutions, to pardon Tyrone, whose rebellion had created her so much trouble, and whom she regarded as the remote cause of all her favourite's misfortunes. An unexpected discovery completed her sorrow, and rendered her melancholy mortal.

While Essex was in high favour with Elizabeth, she had given him a ring, as a pledge of her affection; and accompanied it with a promise, that into whatever disgrace he might fall, or whatever prejudices she might be induced, by his enemies, to entertain against him, on producing that ring, he might depend on her for forgiveness. This precious gift he had reserved for the final extremity. All his misfortunes had not been able to draw it from him; but after his condemnation, he resolved to try its efficacy, and committed it to the countess of Nottingham, in order to be delivered to the queen. The countess communicated the matter to her husband, one of Essex's most implacable enemies, who persuaded her to act an atrocious part; neither to deliver the ring to the queen, nor to return it the earl. Elizabeth, who had anxiously expected that last appeal to her tenderness, imputed an omission, occasioned by the countess' treachery, to the disdainful pride of her favourite; and she was chiefly induced, by the resentment arising from that idea, to sign the warrant for his execution.

Conscience discovered what it could not prevent. The countess of Nottingham, falling ill, and finding her end fast approaching, was seized with remorse on account of her perfidy. She desired to see the queen, in order to reveal to her a secret, without disclosing which she could not die in peace. When the queen entered her apartment, she presented the fatal ring; related the purpose for which she had received it, and begged forgiveness. All Elizabeth's affection returned, and all her rage was roused. "God may forgive you," cried she, "but I never can!" shaking the dying countess in her bed, and rushing out of the room.

Few and miserable, after this discovery, were the days of Elizabeth. Her spirits left her, and existence itself seemed a burden. She rejected all consolation: she would scarcely taste food, and refused every kind of medicine, declaring that she wished to die, and would live no longer. She could not even be prevailed on to go to bed; but threw herself on the carpet, where she remained, pensive and silent, during ten days and nights, leaning on cushions, and holding her finger almost continually on her mouth, with her eyes open, and fixed upon the ground. Her sighs, her groans, were all expressive of some inward grief, which she cared not to utter, and which preyed upon her life. At last, her death being visibly approaching, the privy council sent to know her will, in regard to her successor. She answered, with a feeble voice, that as she had held a regal sceptre, she desired no other than a royal successor; and on Cecil's desiring her to explain herself, she said, "Who should that be but my nearest kinsman, the king of Scots?" She expired soon after, without a struggle, her body being totally wasted by anguish and abstinence.

History does not afford a more striking lesson on the unsubstantial nature of human greatness, than in the close of this celebrated reign. Few sovereigns ever swayed a

sceptre with more dignity than Elizabeth; few have enjoyed more uniform prosperity; and none could be more beloved by their people: yet this great princess, after all her glory and popularity, lived to fall into neglect, and sunk into the grave beneath the pressure of a private grief, accompanied by circumstances of distress, which the wretch on the torture might pity, and which the slave who expires at the oar does not feel. But the reign of Elizabeth yields other lessons. It shews to what a degree of wealth and consequence a nation may be raised in a few years, by a wise and vigorous administration; and what powerful efforts may be made by a brave and united people, in impelling or annoying an enemy, how superior soever in force.

It will not here be improper to look back a little, and consider the progress of society in England, during the government of the house of Tudor.

The war between the houses of York and Lancaster having greatly diminished the population of the country, the agricultural art suffered from the paucity of labourers, and it was also injured by the demand of the continental manufactures for English wool, which promoted the application of land to the purposes of pasturage. The legislature repeatedly endeavoured to remedy an evil so afflictive to the poor; but the oppressions of Philip II. were more operative; as the check which trade and industry received in the Spanish Netherlands, had such an effect on the consumption of wool in those provinces, that the English land-holders became more attentive to agriculture, than to the supply of that commodity.

The increase of luxury and refinement, under the sovereigns of the house of Tudor, tended to the encouragement of manufactures. Linen, however, was chiefly imported; and few silken articles were made in England.

The operations practised upon different metals were prosecuted with augmented skill, not only in the more valuable kinds, but also in copper and iron. In these metals a great number of articles were dexterously fabricated. The use of armour for the body furnished frequent employment for artizans. Pieces of artillery were usually obtained from the continent; but at length, under Henry VIII., a cannon foundery was formed. Musquets were little used before the reign of Edward VI.; whose uncle, the protector, encouraged these implements.

Castles, or defensive habitations, were now neglected; and the nobility began to reside in more commodious edifices. The gentry improved their places of abode; and the formation of chimneys, with a more general use of glass in windows, added to the accommodation of plebeian houses.

The commerce of the English flourished under Henry VII., who concluded various treaties for the promotion of it, and procured the enactment of several laws, tending to the same object. His successor was not unfriendly to it; and Edward VI. testified his desire of encouraging it, by dissolving the company of Easterling merchants settled in this kingdom, whose address and activity had checked the equipment of English vessels. Three ships being soon after sent to the northward, one of them penetrated to the White Sea, and opened a new traffic, which produced the grant of a charter from queen Mary to the Russia company. Under the auspices of Elizabeth, a regular trade was prosecuted with Guinea and other parts of Africa, with the Turkish domi-

nions in Europe and Asia, and with the territories of the Mogul and other princes of India.

A considerable variety of coins were in circulation during these reigns. Shillings were coined by Henry VII., besides groats, half-groats, and other silver pieces; and sovereigns (or pieces of gold, worth 42s.) were the produce of his mint, with nobles, and many other coins. His son greatly debased the coin; but Elizabeth restored it to a state of comparitive purity, by introducing an alloy of only 18 penny-weights in a pound of silver, which was coined into 60 shillings. Guineas and their subdivisions were afterwards brought into use. The rate of interest, for the loan of money, was fixed by the legislature at 10 per cent.

The government, in this period, was frequently conducted without regard to constitutional restrictions. The arbitrary court of the Star Chamber was erected by Henry VII.; and Henry VIII. and Elizabeth made their parliaments the slaves of their wills. The state of the community, however, was meliorated even by these despots.

The haughty spirit, both of the nobles and the people, declined in those times. The former became servile courtiers; and the latter seemed to have lost all sense of manly freedom. Hospitality was less prevalent; frankness and sincerity were less observable; and perjury was a frequent crime. Notwithstanding the reformation of religion, superstition continued to have great influence; and the cruelties exercised on the supposed votaries of magic or sorcery, disgraced the times.

The flourishing age of chivalry expired with Henry VIII.; but tilting was sometimes practised in the reign of Elizabeth. Pageants and masques were exhibited at court; and the drama, in her time, assumed a regular form. Music profited by scientific cultivation. Poetry was refined; and, by the establishment of typography, literature was widely diffused. Painting was admired by persons of taste; but the artists who received, and indeed deserved, the greatest encouragement from the English, were foreigners, among whom Holbein conspicuously shone.

In the universities, scholastic theology was less studied than classical learning; and the subtleties of corrupt logic were neglected. New colleges were established; and the statutes for their regulation were more liberal and judicious than the ordinances of preceding founders. In the metropolis, a medical college was instituted, under the patronage of cardinal Wolsey; and the Temple and other inns of court afforded great conveniencies for the study of the law.

CHAPTER XII.

GREAT BRITAIN AND IRELAND.—*From the accession of James I. to the death of Charles I.*

THE English throne being left vacant by the death of Elizabeth, who, with her latest breath, had declared, That she wished to be succeeded by her nearest kinsman, the king of Scots, and, in her dying moments, had made signs to that purpose, James was immediately proclaimed king of England, by the lords of the privy council. He was great-grandson of Margaret, eldest daughter of Henry VII.; so that, on the failure of the male line of the house of Tudor, his hereditary title remained unquestionable. The crown of England, therefore, passed from the family of Tudor to that of Stuart, with as much tranquillity as ever it was transmitted from father to son. People of all ranks, forgetting their antient hostilities with Scotland, and their aversion against the dominion of strangers, testified their satisfaction with louder acclamations than were usual at the accession even of their native princes. They foresaw greater advantages resulting from a perpetual alliance with Scotland, than inconveniencies from submitting to a sovereign of that kingdom. And, by this junction of its whole collective force, Great Britain has risen to a degree of power and consequence in Europe, which Scotland and England, destined by their position to form one vigorous monarchy, could never have attained, as separate and hostile kingdoms.

Dazzled with the glory of giving a master to their rich and powerful rivals, and relying on the partiality of their native prince, the Scots expressed no less joy than the English, at this increase of their sovereign's dignity; and as his presence was necessary in England, where the people were impatient to see their new king, James instantly prepared to leave Edinburgh, and set out for London without delay. In his journey, crowds of his English subjects every where assembled to welcome him: great were the rejoicings, and loud and hearty the salutations that resounded from all sides. But James, who wanted that engaging affability by which Elizabeth had captivated the hearts of her people; and who, although social and familiar among his friends and courtiers, could not bear the fatigue of rendering himself agreeable to a mixed multitude; James, who, though far from disliking flattery, was still fonder of ease, unwisely issued a proclamation, forbidding such tumultuous resort. A disadvantageous comparison between his deportment and that of his illustrious predecessor was the consequence; and if Elizabeth's frugality in conferring honours had formerly been repined at, it was now justly esteemed, in consequence of that undistinguishing profusion with which James bestowed them.

The king's liberality, however, in dispensing these honours, it may be presumed, would have excited less censure in England, had they not been shared out, with other advantages, in too unequal proportions, to his Scottish courtiers, a numerous train

of whom accompanied him to London. Yet it must be owned, in justice to James, whose misfortune it was through his whole reign, to be more guided by temper and inclination, than by the rules of political prudence, that he left all the great offices of state in the hands of Elizabeth's ministers, and trusted the conduct of public affairs, both foreign and domestic, for a time, to his English subjects. Among these, secretary Cecil, with whom he had held a private correspondence during the latter years of Elizabeth, and who had smoothed his way to the throne, was regarded as his prime minister and chief counsellor.

As this correspondence had been carried on with the most profound secrecy, Cecil's favour with the king created general surprise; it being well known to the nation, that his father, lord treasurer Burleigh, had been the principal cause of the tragical death of the queen of Scots, and that he himself had hastened the fate of Essex, the warm friend of the family of Stuart. But the secretary's services had obliterated his crimes; and James was not so devoid of prudence or of gratitude, as to slight the talents of a man, who was able to give stability to that throne, which he had helped him to ascend, nor so vindictive as to persecute him from resentment of a father's offences. On the contrary, he loaded him with honours; created him successively lord Effingdon, viscount Cranbourn, and earl of Salisbury. The earl of Southampton and the young earl of Essex were restored to their titles; while sir Walter Raleigh, lord Grey, and lord Cobham, Cecil's former associates, were dismissed from their employments. This disgrace, however, was not so much occasioned by their hostile conduct, and violent opposition against the king's family during the life of Elizabeth, as by an ineffectual attempt which they had made, after her death to prescribe certain conditions to the successor, whom, they found, they wanted power to set aside, before he should ascend the throne.

James and his new ministers had soon an opportunity of exercising their political sagacity. Ambassadors arrived from almost all the princes and states in Europe, in order to congratulate him on his accession to the crown of England, and to form new treaties and alliances with him, as the head of the two British kingdoms. Among others, Henry Frederic of Nassau, assisted by Barnevelt, the Pensionary of Holland, represented the United Provinces. But the envoy who most excited the attention of the public, both on account of his own merit and that of his master, was the marquis de Rosni, afterwards duke of Sully, prime minister and favourite of Henry IV. of France. He proposed, in his masters's name, a league with James, in conjunction with Venice, the United Provinces, and the Northern crowns, in order to restrain the ambition, and to depress the exorbitant power of the house of Austria. But whether the genius of the British king, naturally timid and pacific, was inadequate to such vast undertakings, or so penetrating as to discover, that the French monarchy, now united in domestic concord, and governed by an able and active prince, was become of itself a sufficient counterpoise to the Austrian greatness, he declined taking any part in the projected league, so that Rosni, obliged to contract his views, could only concert with him the means of providing for the safety of the United Provinces. Nor was this an easy matter, for James, before his accession to the throne of England, had entertained many scruples

in regard to the revolt of the Low countries, and had even gone so far, on some occasions, as to give to the Dutch the appellation of rebels. He was induced, however, after conversing freely with his English ministers and courtiers, to sacrifice to politics his sense of justice. He found the attachment of his new subjects so strong to that republic, and their opinion of a common interest so firmly established, as to make his concurrence necessary. He therefore agreed with Rosni to support secretly the States General, in conjunction with France, lest their weakness and despair should bring them again under the enormous dominion of Spain.

While James was taking these salutary steps for securing tranquillity, both foreign and domestic, a conspiracy was hatching to subvert the government, and to place on the throne of England Arabella Stuart, the king's cousin-german, equally descended with him from Henry VII. Watson and Clarke, two catholic priests, were accused of hatching the plot, and executed for their share in it. But the chief conspirators were lord Cobham, and his brother, Mr. Broke, lord Grey, sir Griffen Markham, sir Walter Raleigh, and other discarded courtiers.

These daring and ambitious spirits, meeting frequently together, and believing the whole nation as dissatisfied as themselves, had entertained very criminal projects; and some of them, as appeared on their trial, had even entered into a correspondence with Aremberg, the Flemish ambassador, in order to disturb the new settlement of the crown. Cobham, Grey, and Markham, were pardoned, after they had laid their heads upon the block; Broke was executed, and Raleigh reprieved. He remained, however, in confinement many years.

Soon after surmounting this danger, the king was engaged in a business more suited to his temper, and in which he was highly ambitious of making a figure. Of all the qualities that mark the character of James, he was by none so much distinguished as by the pedantic vanity of being thought to excel in school learning. This vanity was much heightened by the flattery he met with from his English courtiers, but especially those of the ecclesiastical order, and he was eager for an opportunity of displaying his theological talents, of all others most admired in that age, to the whole body of his new subjects. Such an opportunity was now offered him, by a petition from the puritans, for reforming certain tenets of the established church. Under pretence of finding expedients which might reconcile the parties, the king called a conference at Hampton Court, and gave the petitioners hopes of an impartial debate; though nothing appears to have been farther from his purpose. This matter will require some illustration.

The puritans, whom we have formerly had occasion to mention, formed a sect which secretly lurked in the church, but pretended not to any separate worship or discipline. They frequented no dissenting congregation, because there were none such in the kingdom; uniformity in religion being, in that age, thought absolutely necessary to the support of government, if not to the very existence of civil society, by men of all ranks and characters. But they maintained, that they themselves were the only pure church; that their principles and practices ought to be established by law, and that none else deserved to be tolerated.

In consequence of this way of thinking, the puritanical clergy frequently refused to comply with the legal ceremonies, and were deprived of their livings, if not otherwise punished, during the reign of Elizabeth. Yet so little influence had these severities upon the party, that no less than 750 clergymen signed the petition to the king for the farther reformation of the church.

As James had been educated in the religion of the church of Scotland, which was nearly the same with that which the puritans wanted to establish in England; and as he had written, at a very early period of life, a commentary on the Revelations, in which he had proved the pope to be Antichrist, and modern Rome the Whore of Babylon in scripture, they hoped to see the sanctuary thoroughly purified, and every remaining rag of the Whore torn away. The impurities of which they chiefly complained were the episcopal vestments, and certain ceremonies, which were deemed venerable from age and preceding use, which the church of England had retained at the reformation; such as the use of the ring in marriage, the cross in baptism, and the reference of bowing at the name of Jesus. If the king should not utterly abolish these abominations, they flattered themselves, that he would at least abate the rigour of laws agains nonconformity.

But although James, in youth, had strongly imbibed the Calvinistic doctrines, his mind had now taken a contrary bias. The more he knew the puritanical clergy, the less favour he bore them. He had remarked in their Scottish brethren a violent turn towards republican maxims. They had disputed his tenets, and counteracted his commands.

Such liberties could hardly have recommended them to any prince, and made them peculiarly obnoxious to James, whose head was filled with lofty notions of kingship, and high prerogative, as well as of his theological pre-eminence and ecclesiastical supremacy. Besides, he dreaded the popularity which the puritans had acquired in both kingdoms; and being much inclined himself to mirth and wine, and sports of all kinds, he apprehended the censure of their austerity, on account of his free and disengaged manner of life. Thus averse, from temper as well as policy, against this rigorous sect, James was determined to prevent, as far as possible, its farther growth in England; and even to introduce, as we shall afterwards have occasion to see, the English liturgy into Scotland.

A judge so prejudiced could not possibly be just. The puritans accordingly complained, and with reason, of the unfair management of the dispute at the conference. From arbiter, the king turned principal disputant, and frequently repeated the episcopal maxim: "No bishop, no King." The bishops and other courtiers, in their turn, were very liberal in their applause of the royal theologician. "I have often heard that the royalty and priesthood were united," said chancellor Egerton, "but never saw it verified till now." And Whitgift, archbishop of Canterbury, exclaimed, "That he verily believed the king spoke by the special assistance of God's spirit!" Little wonder, after so much flattery from the church and its adherents, that the puritans were enjoined by the king to conform. They obtained, however, a few alterations in the liturgy; and pleaded hard for the revival of certain assemblies, which they called pro-

phecyings, and which had been suppressed by Elizabeth, as dangerous to the state. This demand roused all James's choler; and he delivered himself in a speech, which distinctly shews the political considerations that determined him in his choice of religious parties. "If you aim at a Scottish presbytery," replied he, "it agrees as well with monarchy as God and the Devil. There Jack, and Tom, and Will, and Dick, shall meet and censure me and my council: therefore I reiterate my former speech, le Roi s'avisera. Stay, I pray, for one seven years before you demand; and then, if you find me grow pursy and fat, I may, perchance, hearken unto you; for that government will keep me in wind, and give me work enough."

The assembly in which the king next displayed his learning and eloquence, was of a very different complexion. The meeting of the great council of the nation had hitherto been delayed from a dread of the plague, which had lately broke out in London, and there raged to such a degree, that above 30,000 persons are supposed to have died of it, although the city and suburbs did not then contain 200,000 inhabitants. At length, however, the plague subsided, and the parliament was convened. The speech which James made on that occasion fully displays his character. Though by no means deficient either in style or matter, it wants that majestic brevity and reserve, which becomes a king in addressing his subjects from the throne. "Shall I ever," said he, "nay can I ever be able, or rather so unable, in memory, as to forget your unexpected readiness and alacrity—your ever memorable resolution, and the most wonderful conjunction and harmony of your hearts, in declaring and embracing me as your undoubted and lawful king and governor? or shall it ever be blotted out of my mind, how, at my first entrance into this kingdom, the people of all sorts rid and ran, nay rather flew to meet me? their eyes flaming nothing but sparkles of affection, their mouths and tongues uttering nothing but sounds of joy; their hands, feet, and all the rest of their members, in their gestures discovering a passionate longing to meet their new sovereign?" He next expatiated on the manifold blessings, which the English had received in his person; and concluded with observing, that the measure of their happiness would be full, if England and Scotland were united in one kingdom. "I am the husband," added he, "and the whole island is my lawful wife; and I hope no one will be so unreasonable as to think, that a Christian king, under the gospel, can be a polygamist, and the husband of two wives."

The following words, in a letter from James to the parliament, on the same subject, is more to the purpose. "It is in you now," says he, "to make the choice, to procure prosperity and increase of greatness to me and mine, you and yours; and by the taking away of that partition wall, which, already, by God's providence, in my blood is rent asunder, to establish my throne and your body politic, in a perpetual and flourishing peace."

This was indeed an important and desirable object, and so much was James's heart set upon effectually removing all division between the two kingdoms, and so sure did he think himself of acc aim, that he assumed the title of king of Great Britain; quartered St. Andrew's cross with St. George's; and, in order to give a general idea of the peaceful advantages of such an union, the iron doors of the frontiers

towns were converted into plough-shares. But the minds of men were not yet ripe for that salutary measure. The remembrance of former hostilities was too recent to admit of a cordial friendship: the animosity between the two nations could only be allayed by time. The compluisance of the parliament to the king, therefore, carried them no farther than to appoint 44 English to meet with 31 Scottish commissioners, in order to deliberate concerning the terms of an union, without any power of making advances towards its final establishment.

The commons discovered more judgment of national interest, in some other points in which they opposed the crown; and fully shewed, that a bold spirit of freedom, if not a liberal manner of thinking, was become general among them. It had been usual, during the reign of Elizabeth, as well as in more early periods of the English government, for the chancellor to exert a discretionary authority, of issuing new writs for supplying the places of such members as he judged incapable of attending, on account of their ill state of health, or any other impediment.

This dangerous prerogative James ventured to exercise in the case of sir Francis Goodwin. The chancellor declared his seat vacated, and issued a writ for a new election. But the commons, whose eyes were now opened, saw the pernicious consequences of such a power, and asserted their right of judging solely in their own elections and returns. "By this course," said a member, "a chancellor may call a parliament, consisting of what persons he pleases. Any suggestion, by any person, may be the cause of sending a new writ. It is come to this plain question, whether the chancery or the parliament ought to have authority?" The king was obliged to yield the point; and that right, so essential to public liberty, has ever since been regarded as a privilege inherent in the house of commons, though at that time rendered doubtful, through the negligence of former parliaments.

Nor did the spirit and judgment of the commons appear only in their vigorous exertions in defence of their own privileges: they extended their attention to the commercial part of the nation; and endeavoured, though at that time in vain, to free trade from those shackles which the ill-judged policy of Elizabeth had imposed upon it. James had already, of his own accord, called in and annulled the numerous patents for monopolies, which had been granted by that princess, and which fettered every species of domestic industry; but the exclusive companies still remained, another species of monopolies, by which almost all foreign trade was brought into the hands of a few rapacious engrossers, and all prospect of future improvement in commerce sacrificed to a temporary advantage to the crown. The commons also attempted to free the landed interest from the burden of wardships, and the body of the people from the oppression of purveyance.

It will therefore be proper here to give some account of these grievous remains of the feudal government. The right of purveyance was an antient prerogative, by which the officers of the crown could, at pleasure, take provisions for the king's household, whithersoever he travelled, from all the neighbouring counties, and make use of the horses and carriages of the farmers. The price of these provisions and services was fixed and stated; but the payment of the money was often distant and uncertain, and the

rates were always much inferior to the usual market price: so that purveyance, besides the slavery of it, was always regarded as a heavy burden, and being arbitrary and casual, was liable to great abuses. Elizabeth made use of it to victual her navy during the first years of her reign. Wardship, though the most regular and legal of all impositions by prerogative, was also an humiliating badge of slavery, and oppressive to all the considerable families among the nobility and gentry. When an estate devolved to a female, the king could oblige her to marry whom he pleased; and whether the heir was male or female, the crown enjoyed the whole profits of the estate during the minority.

These impositions had been often complained of; and the commons now proposed to compound with the king for them, by a secure and independent revenue. The benefit which the crown reaped from wardship and purveyance was accordingly estimated; but, after some debate in the lower house, and a conference with the lords on the subject, it was found to contain more difficulties than could at that time be easily surmounted, and therefore no further progress was made in the business.

Soon after the rising of parliament, a treaty of peace, which had been some time in agitation, was finally concluded with Spain. And although the war between Philip II. and Elizabeth appears to have been continued from personal animosity rather than any contrariety of political interests between their subjects, this treaty was generally disliked by the English nation; as it checked the spirit of enterprize, so prevalent in that age, and contained some articles which seemed prejudicial to the Dutch commonwealth. But these articles, so far at least as they regarded supplies, were never executed by James; who had, by a secret article, as we have formerly had occasion to observe, expressly reserved the power of sending assistance to the United Provinces.

During this season of peace and tranquillity, was brought to light, one of the most diabolical plots of which there is any record in the history of mankind. The conspiracy to which we allude is the Gunpowder Treason. A scheme so infernally dark will require some elucidation.

The Roman catholics in general were much disappointed, and even exasperated, by the king's conduct in religious matters. He was not only the son of the unfortunate Mary, whose life they believed to have been sacrificed to their cause, but, in order to quiet opposition, and make his accession to the throne of England more easy, he had given them hopes that he would tolerate their religion. They therefore expected great favour and indulgence under his government. But they soon discovered their mistake; and, equally surprised and enraged, when they found James had resolved to execute the rigorous laws enacted against them, they determined on vengeance. Some of the most zealous of the party, under the direction of Garnet, the superior of the Jesuits in England conspired to exterminate, at one blow, the most powerful of their enemies in this kingdom; and, in consequence of that blow, to re-establish the catholic faith. Their conspiracy had for its object the destruction of the king and parliament. For this purpose they lodged 36 barrels of gunpowder in a vault beneath the House of Lords, usually let as a coal-cellar, and which had been hired by Percy, a near relation

of the family of Northumberland, and one of the original conspirators. The time fixed for the execution of the plot was the 5th of November, the day appointed for the meeting of the parliament; when the king, queen, and prince of Wales were expected to be in the house, together with the principal nobility and gentry. The rest of the royal family were to be seized, and all dispatched, except the princess Elizabeth, James's youngest daughter, yet an infant, who was to be raised to the throne, under the care of a catholic protector.

The destined day at length drew nigh, and the conspirators were filled with the strongest assurances of success. Nor without reason; for although the horrid secret had been communicated to above twenty persons, no remorse, no pity, no fear of punishment, no hope of reward, had induced any one accomplice, after more than twelve months, either to abandon the conspiracy, or to make a discovery of it. But the holy fury by which they were actuated, though it had extinguished in their breasts every generous sentiment, and every selfish motive, yet left them susceptible to those bigoted partialities, by which it was inspired, and which fortunately saved the nation. A short time before the meeting of parliament, lord Monteagle, a catholic nobleman, whose father, lord Morley, had been a great sufferer during the reign of Elizabeth, on account of his attachment to popery, received the following letter:

"My Lord, out of the love I bear to some of your friends, I have a care of your preservation: therefore I would advise you, as you tender your life, to devise some excuse to shift off your attendance at this parliament; for God and man have resolved to punish the wickedness of this time. And think not slightly of this advertisement; but retire yourself into your country, where you may expect the event in safety: for though there be no appearance of any stir, yet I say they will receive a terrible blow this parliament, and yet they shall not see who hurts them. This counsel is not to be contemned; because it may do you good, and can do you no harm, for the danger is past as soon as you have burned the letter: and I hope God will give you the grace to make good use of it, to whose holy protection I commend you."

Though Monteagle was inclined to think this a foolish attempt to expose him to ridicule, by frightening him from attending his duty in parliament, he judged it safest to carry the letter to lord Salisbury, secretary of state. Salisbury either did or pretended to think it a light matter; so that all farther inquiry was dropt, till the king, who had been for some time at Royston, returned to town. To the timid sagacity of James, the matter appeared in a more important point of view. From the serious and earnest style of the letter, he conjectured that it intimated some dark and dangerous design against the state; and many particular expressions in it, such as great, sudden, and terrible blow, yet the authors concealed, seem to denote some contrivance by gunpowder.

It was, therefore, thought proper to inspect all the vaults below the two houses of parliament. This inspection, however, was purposely delayed till the day before the meeting of the great council of the nation; when, on searching the vaults beneath the House of Lords, the gunpowder was discovered, though concealed under great piles of wood and faggots; and Guy Fawkes, an officer in the Spanish service, who stood in

a dark corner, and passed himself for Percy's servant, was seized and carri[ed to the] Tower. This man had been sent from Flanders, on account of his determined courage, and known zeal in the catholic cause. He was accordingly entrusted with the most trying part in the enterprize. The matches, and every thing proper for setting fire to the train, were found in his pocket. He at first behaved with great insolence and obstinacy; not only refusing to discover his accomplices, but expressing the utmost regret, that he had lost the precious opportunity of at least sweetening his death, by taking vengeance on his and God's enemies. But, after some days confinement and solitude, his courage failed him, on being shewn the rack, and he made a full discovery of all the conspirators. Several of them were men of antient family, independent fortune, and unspotted character; instigated alone to so great a crime by a fanatical zeal, which led them to believe that they were serving their Maker, while they were contriving the ruin of their country, and the destruction of their species.

Such of the conspirators as were in London, on hearing that Fawkes was arrested, hurried down to Warwickshire; where sir Everard Digby, one of their associates was already in arms, in order to seize the princess Elizabeth, who was then at lord Harrington's in that county. They failed in their attempt to get hold of the princess; the county rose upon them, and they were all taken and executed, except three, who fell a sacrifice to their desperate valour; namely, Wright, a daring fanatic, Catesby, the original conspirator, and Percy, his first and most active associate.

Elizabeth had lived to see the final subjection of Ireland. But a difficult task still remained; to civilize the barbarous inhabitants; to reconcile them to laws and industry; and, by these means, to render the conquest durable and useful to the crown of England.

The first step that James took in regard to this important business, which he considered as his master-piece in politics, was to abolish the Irish customs that supplied the place of laws; and which were calculated, as will appear, by a few examples, to keep the people for ever in a state of barbarism and disorder. Their chieftains, whose authority was absolute, were not hereditary, but elective; or, more properly speaking, were established by force and violence; and although certain lands were assigned to the office, its chief profit arose from exactions, dues, and assessments, which were levied at pleasure, and for which there was no fixed law. In consequence of the Brehon law or custom, every crime, how enormous soever, was punished in Ireland, not with death, but by a fine, or pecuniary mulct, which was levied upon the criminal. Even murder itself, as among our Saxon ancestors, was atoned for in this manner; and each man, according to his rank, had affixed to him a certain rate or value, which, if any one was willing to pay, he need not fear assassinating whatever man he disliked. This rate was called his Eric. Accordingly, when sir William Fitz Williams, while lord deputy, told the chieftain Maguire, that he was to send a sheriff into Fermanagh, which had been made a county a little before, and subjected to the English laws; "Your sheriff" replied Maguire, "shall be welcome to me: but let me know beforehand his Eric, or the price of his head, that, if any of my people should cut it off, I may levy the money upon the county.

After abolishing these and other pernicious Irish customs, and substituting English laws in their stead, James proceeded to govern the natives by a regular administration, military as well as civil. A sufficient army was maintained, its discipline inspected, and its pay punctually transmitted from England, in order to prevent the soldiers from subsisting upon the country, as had been usual in former reigns. Circuits were established, justice administered, oppression banished, and crimes and disorders of every kind severely punished. For the relief of the common people, the value of the dues, which the nobles usually claimed from their vassals, was estimated at a fixed sum, and all farther arbitrary exactions prohibited, under severe penalties.

The beneficial effects of these regulations were soon visible, especially in the province of Ulster; which, having wholly fallen to the crown by the attainder of rebels, a company was established in London for planting colonies in that fertile territory. The property was divided into moderate shares, the largest not exceeding 2000 acres; tenants were brought from England and Scotland; the Irish were removed from the hills and fastnesses, and settled in the open country; husbandry and the mechanical arts were taught them; a fixed habitation was secured for them, and every irregularity repressed. By these means, Ulster, from being the most wild and disorderly province in Ireland, soon became the most civilized and best cultivated part of the island.

But whatever domestic advantages might result from James's pacific disposition, it gradually lost him the affection of his people, as it made him avoid war, by negotiations and concessions beneath the dignity of an English monarch. It sunk the national consequence, and perhaps the national spirit; and his excessive love of carousals and hunting, of public spectacles and unavailing speculations, which left him no time for public business, at last divested his political character of all claim to respect, and rendered him equally contemptible at home and abroad.

This contempt was increased by a disadvantageous comparison between the king and the prince of Wales. Though youth and royal birth, embellished by the flattering rays of hope, prepossessed men strongly in favour of an heir apparent to the crown, Henry, James's eldest son, independent of such circumstances, seems to have prossessed great and real merit. Although he had now almost reached his 18th year, neither the illusions of passion nor of rank had ever seduced him into any irregular pleasures: business and ambition alone engaged his heart, and occupied his mind. Had he lived to come to the throne, he might probably have promoted the glory more than the happiness of his people, his disposition being strongly turned to war. Of this we have a remarkable instance. When the French ambassador took leave of him, and asked his commands for France, he found him employed in the exercise of the pike, "Tell your king," said Henry, "in what occupation you left me engaged."

His death, which was sudden, diffused throughout the nation the deepest sorrow, and violent reports were propagated, that he had been taken off by poison. The physicians, however, on opening his body, found no symptoms to justify such an opinion.

But James had one weakness, which drew on him more odium than either his pedantry, pusillanimity, or extravagant love of amusement; namely, an infatuated at-

tachment to young and worthless favourites. This passion appears so much [illegible] ludicrous, though less detestable, that it does not seem to have contained any thing criminal in it.

The first and most odious of these favourites was Robert Carr, a young gentleman of a good family in Scotland. When about 20 years of age, he arrived in London, after having passed some time in his travels. A handsome person, an easy manner, and a graceful air, were his chief accomplishments; and these were sufficient to recommend him to James, who through his whole life, was too liable to be captivated with exterior qualities

Lord Hay, a Scottish nobleman, who was well acquainted with this weakness in his sovereign, and meant to take advantage of it, assigned to Carr, at a tournament, the office of presenting the king his buckler and device. But, as the future favourite was advancing for that purpose, his ungovernable horse threw him, and his leg was broken by the fall.

Equally struck with this incident, and with the beauty and simplicity of the youth, whom he had never seen before, James approached him with sentiments of the softest compassion; ordered him to be lodged in the palace, and to be attended by the most skillful surgeons; and he himself paid him frequent visits during his confinement. The more ignorant he found him, the stronger his attachment became. Highly conceited of his own wisdom, he flattered himself that he should be able to form a minister, whose political sagacity would astonish the world, while he surpassed all his former courtiers in personal and literary accomplishments.

In consequence of this partial fondness, interwoven with selfish vanity, the king soon knighted his favourite; created him viscount Rochester, honoured him with the Garter, brought him into the privy council, and, without assigning him any particular office, gave him the supreme direction of his affairs. The minion however, was not so much elated by his sudden elevation, as not to be sensible of his own ignorance and inexperience. He had recourse to the advice of a friend, and found a judicious and sincere counsellor in sir Thomas Overbury; by whose means he enjoyed for a time, what is very rare, the highest favour of the prince, without being hated by the people.

The exterior accomplishments of the earl of Rochester excited the criminal attention of lady Frances Howard, daughter of the earl of Suffolk. She had been contracted, at an early age, to the earl of Essex; but they had been prevented, by his absence, from the consummation of their marriage.

The correspondence between the two guilty lovers was carried on by the assistance of sir Thomas Overbury, who composed the epistles which were sent in the name of Rochester.

As this amour and its consequences afford an awful lesson on the fatal effects of licentious love, it would be improper to pass it over altogether in silence. Though sir Thomas Overbury, without any scruple, had encouraged his friend's passion for the countess of Essex, while he considered it merely as an affair of gallantry, his prudence was alarmed at the idea of marriage. And he represented to Rochester, not only how

[dangerous?] and difficult an undertaking it would prove to get her divorced from her husband; but how shameful it would be to take to his own bed a profligate woman; who, although married to a young nobleman of the first rank, had not scrupled to prostitute her character, and bestow her favours on the object of a capricious and momentary impulse; on a lover whom she must suppose would desert her on the first variable gust of loose desire. Rochester was so weak as to reveal this conversation to the countess, and so base as to enter into her vindictive views; to swear vengeance against his friend, for the strongest instance he could receive of his fidelity. Some contrivance was necessary for the execution of their diabolical scheme. Overbury's conduct was misrepresented to the king, who granted a warrant for committing him to the Tower; where he lay till the divorce was procured, and Rochester's marriage with the countess celebrated. The king, solicitous lest the lady should lose any rank by her new marriage, bestowed on his minion the title of earl of Somerset.

Neither did this success, nor the misery of the prisoner, who was debarred the sight even of his nearest relations, satisfy the vengeance of that violent woman. She engaged her husband and her uncle, the earl of Northampton, in the atrocious design of taking off Overbury by poison; and they, in conjunction with sir Jervis Elvis, lieutenant of the Tower, at length effected their cruel purpose. Though the precipitation with which Overbury's funeral was hurried over, immediately bred a strong suspicion of the cause of his death, the full proof of the crime was not brought to light till some years after; when it was discovered by means of an apothecary's servant, who had been employed in making up the poisons, and the whole labyrinth of guilt distinctly traced to its source.

But although Somerset had so long escaped the enquiry of justice, he had not escaped the scrutiny of conscience, which continually pointed to him his murdered friend; and even within the circle of a court, amid the blandishments of flattery and of love, struck him with the representation of his secret enormity, and diffused over his mind a deep melancholy, which was neither to be dispelled by the smiles of beauty, nor the rays of royal favour. The graces of his person gradually disappeared, and his gaiety and politeness were lost in sullenness and silence. The king, whose affections had been caught by these superficial accomplishments, finding his favourite no longer contribute to his amusement, and unable to account for so remarkable a change, more readily listened to the accusations brought against him. A rigorous inquiry was ordered; and Somerset and his countess were found guilty, but pardoned through the indiscreet lenity of James. They languished out their remaining years, which were many and miserable, in infamy and obscurity; alike hating and hated by each other. Sir Jervis Elvis and the inferior criminals suffered the punishment due to their guilt.

The fall of Somerset, and his banishment from court, opened the way for a new favourite to rise at once to the highest honours. George Villiers, an English gentleman, of an engaging figure, and in all the bloom of 21, had already attracted the eyes of James; and, at the intercession of the queen, had been appointed cup-bearer. This office might well have contented Villiers, and have attached him to the king's person; nor would such a choice have been censured, except by the cynically severe.

But the profuse bounty of James induced him, in the course of a [illegible] to all the rules of prudence and politics, to create his minion viscount [illegible] quis, and duke of Bukingham, knight of the garter, master of the horse, [illegible] Eyre, warden of the Cinque Ports, master of the King's-Bench, steward of W[illegible] constable of Windsor, and lord high admiral of England.

This rapid advancement of Villiers, which rendered him for ever rash and violent, involved the king in new necessities, in order to supply the extravagance of the minion. A price had been already affixed to every rank of nobility, and the title of baronet invented, and currently sold for one thousand pounds, to supply the profusion of Somerset. Some new expedient must now be suggested; and one, very unpopular, though certainly less disgraceful than the former, was embraced: the cautionary towns were delivered up to the Dutch for a sum of money. These towns were the Brill, Flushing, and Ramakins; three important places, which Elizabeth had got consigned into her hands by the United Provinces, on entering into war with Spain, as a security for the repayment of the money which she might disburse on their account. Part of the debt, which at one time amounted to 800,000 pounds, was already discharged; and the remainder, after making an allowance for the annual expence of the garrisons, was agreed to be paid on the surrender of the fortresses. This seems to have been all that impartial justice could demand, yet the English nation was highly dissatisfied with the transaction; and it must be owned, that a politic prince would have been slow in relinquishing possessions, on whatever conditions obtained, which enabled him to hold in a degree of subjection so considerable a neighbouring state as the republic of Holland.

The next measure in which James engaged rendered him as unpopular in Scotland as he was already in England. It was an attempt to establish a conformity in worship and discipline between the churches of the two kingdoms; a project which he had long held in contemplation, and toward the completion of which he had taken some introductory steps. But the principal part of the business was reserved till the king should pay a visit to his native country. Such a journey he now undertook. This naturally leads us to consider the affairs of Scotland.

It might have been readily foreseen by the Scots, when the crown of England devolved upon James, that the independency of their kingdom, for which their ancestors had shed so much blood, would thenceforth be lost, and that, if both kingdoms persevered in maintaining separate laws and parliaments, the weaker must feel its inferiority more sensibly than if it had been subdued by force of arms. But this idea did not generally occur to the Scottish nobles, formerly so jealous of the power as well as of the prerogatives of their princes; and as James was daily giving new proofs of his friendship and partiality to his countrymen, by loading them with riches and honours, the hope of his favour concurred with the dread of his power, in taming their fierce and independent spirits. The will of their sovereign became the supreme law in Scotland. Meanwhile, the nobles, left in full possession of their feudal jurisdiction over their vassals, exhausting their fortunes by the expence of frequent attendance upon the English court, and by attempts to imitate the manners and luxury of their more wealthy neighbours, multi-

plied exactions upon the people; who durst hardly utter complaints, which they knew would never reach the ear of their sovereign, or be rendered too feeble to move him to [illegible] redress. Thus subjected at once to the absolute will of a monarch, and to the oppressive jurisdiction of an aristocracy, Scotland suffered all the miseries peculiar to both these forms of government. Its kings were despots, its nobles were slaves and tyrants; and the people groaned under the rigorous domination of both.

The abhorrence of the presbyterian clergy against episcopacy was very great; nor could all the devices invented for restraining and circumscribing the spiritual jurisdiction of those who were to be raised to the honours of bishops, or the hope of rising to that dignity, allay their jealousy and fear. James was therefore sensible that he never could establish a conformity in worship and discipline between the churches of England and Scotland, until he could procure from the Scottish parliament an acknowledgement of his own supremacy in all ecclesiastical causes. This was the principal object of his visit to his native country: where he proposed to the great council of the nation which was then assembled, that an act might be passed, declaring that, "whatever his majesty should determine in regard to the external government of the church, with the consent of the archbishops, bishops, and a competent number of the ministers, should have the force of a law."

Had this bill received the sanction of parliament, the king's ecclesiastical government would have been established in its full extent; as it was not determined what number of the clergy should be deemed competent, and their nomination was left entirely to himself. Some of them protested: they apprehended, they said, that, by means of this new authority, the purity of their church would be polluted with the rites and forms of the church of England; and James, dreading clamour and opposition, dropped his favourite measure. He was able, however, next year, to extort a vote from the general assembly of the kirk, for receiving certain ceremonies upon which his heart was more particularly set; namely, kneeling at the sacrament, the private administration of it to sick persons, the confirmation of children, and the observance of Christmas and other festivals.

A series of unpopular measures conspired to increase that odium into which James had now fallen in both kingdoms, and which continued to the end of his reign. The first of these was the execution of sir Walter Raleigh.

This extraordinary man, who suggested the first idea of the English colonies in North America, and who had attempted, as early as the year 1586, a settlement in the country now known by the name of North Carolina, then considered as part of Virginia, had also made a voyage, in 1595, to Guiana, in South America. The extravagant account which he published of the riches of this latter country, where no mines of any value have yet been discovered, has drawn much censure upon his veracity; particularly his description of the apparently fabulous empire and city of Manoa or Eldorado, the sovereign of which he conjectured possessed more treasure than the Spaniards had drawn from Mexico and Peru.

Raleigh's motive for uttering these splendid falsities seems to have been a desire of

turning the avidity of his countrymen toward that quarter of the N[illegible] Spaniards had found the precious metals in such abundance. This, in[illegible] appears from his relation of certain prophecies, which expressly pointed out [illegible] as the conquerors and deliverers of that rich country, which he had discovered. [illegible] he was known, however, to be a man of a romantic turn of mind, and it did not appear that he had enriched himself by his voyage, little regard seems to have been paid to his narrative, either by Elizabeth or the nation. But after he had languished many years in confinement, as a punishment for his conspiracy against James; when the envy excited by his superior talents was laid asleep, and commiseration awakened for his unhappy condition, a report which he propagated of a wonderful rich gold mine that he formerly had discovered in Guiana, obtained universal belief. People of all ranks were impatient to take possession of a country overflowing with the precious metals, and to which the nation was supposed to have a right by priority of discovery.

The king, by his own account, gave little credit to this report, not only because he believed there was no such mine in nature as the one described, but because he considered Raleigh as a man of desperate fortune, whose business it was by any means to procure his freedom, and reinstate himself in credit and authority. Thinking, however, that he had already undergone sufficient punishment, James ordered him to be released from the Tower; and when the hopes held out to the nation had induced multitudes to adopt his views, the king gave him permission to pursue the projected enterprize, and vested him with authority over his fellow adventurers; but being still diffident of his intentions, he refused to grant him a pardon, that he might have some check upon his future conduct.

The preparations made in consequence of this commission alarmed Gondomar, the Spanish ambassador; and although Raleigh protested the innocence of his intentions, and James urged his royal prohibition against invading any of the settlements of his Catholic Majesty, that minister conveyed to his court intelligence of the expedition, and his apprehensions from it. Twelve armed vessels, he justly concluded, could not be fitted out without some purpose of hostility; and as Spain was then the only European power that had possessions in that part of America to which this fleet was destined, orders were given by the court of Madrid, for fortifying all its settlements on or near the coast of Guiana.

It soon appeared, that this precaution was not unnecessary. Though Raleigh's commission empowered him only to settle on a coast possessed by savage and barbarous inhabitants, he steered his course directly for the river Oronooko, where he knew there was a Spanish town, named St. Thomas; and, without any provocation, sent a detachment, under his son and his old associate, captain Keymis, who had accompanied him in his former voyage, to dislodge the Spaniards, and take possession of that town; while he himself, with the larger vessels, guarded the mouth of the river, in order to obstruct such Spanish ships as should attempt the relief of the place. The Spaniards, apprized of this invasion, opposed the landing of the English; as they had foreseen. Young Raleigh was killed by a [illegible] while animating his followers: Keymis, however,

and his surviving companions, not dismayed by the unfortunate accident, took, plundered, and burnt St. Thomas: but found in it no booty any way adequate to their expectations.

It might have been expected, that these bold adventurers, having overcome all opposition, would now have gone in quest of the gold mine, the great object of their enterprize, as Keymis was said to be as well, if not better acquainted with it than Raleigh. But, although that officer affirmed he was within a few miles of the place, he refused, under the most absurd pretences, to carry his companions thither, or to take any effectual step for again finding it himself. Struck, as it should seem, with the atrocity of his conduct, and with his embarrassing situation, he immediately returned to Raleigh with the sorrowful news of his son's death, and the disappointment of his followers. The interview, it may be conjectured, was not the most agreeable that could have ensued between the parties. Under this strong agitation of mind which it occasioned, Keymis, keenly sensible to reproach, and foreseeing disgrace, if not an ignominious death, as the reward of his violence and imposture, returned into his cabin, and put an end to his life.

The sequel of this delusive and pompous expedition it is still more painful to relate. The adventurers in general now concluded that they were deceived by Raleigh; that the story of the mine had only been invented to afford him a pretext for pillaging St. Thomas, the spoils of which, he hoped, would encourage his followers to proceed to the plunder of other Spanish settlements; that he expected to repair his ruined fortune by such daring enterprizes; trusting to the riches he should acquire for obtaining a pardon from James; or if that prospect failed him, that he meant to take refuge in some foreign country, where his wealth would secure him an asylum. The inconsiderable booty gained by the sack of St. Thomas, discouraged his followers, however, from embracing these splendid projects, though it appears that he had employed many artifices to engage them in his designs. Besides, they saw a palpable absurdity in a fleet, acting under the sanction of royal authority, committing depredations against the allies of the crown: they therefore thought it safest, whatever might be their inclinations, or how great soever their disappointment, to return immediately to England, and carry their leader along with them to answer for his conduct.

On the examination of Raleigh and his companions, before the privy council, where the foregoing facts were brought to light, it appeared that the king's suspicions, in regard to his intentions, had been well grounded; that, contrary to his instructions, he had committed hostilities against the subjects of his majesty's ally, the king of Spain, and had wilfully burned and destroyed a town belonging to that prince; so that he might have been tried either by common law for this act of violence, or by martial law for breach of orders. But it was the opinion of all the crown lawyers, as we learn from Bacon, That as Raleigh still lay under an actual attainder for high treason, he could not be brought to a new trial for any other crime. James, therefore, in order to satisfy the court of Madrid, which was very clamorous on this occasion, signed the warrant for his execution under his former sentence.

A. D. 1620.

Raleigh's behaviour, since his return, had hitherto been beneath the dignity of his character. He had counterfeited madness, sickness, and a variety of distempers, in order to protract his examination, and enable him to procure the means of his escape. But finding his fate inevitable, he now collected all his courage, and met death with the most heroic indifference. Feeling the edge of the axe with which he was to be beheaded, "'Tis a sharp remedy," said he, "but a sure one for all ills!" then calmly laid his head on the block, and received the fatal blow.

Of all the transactions of a reign distinguished by public discontent, this was perhaps the most odious. Men of every condition were filled with indignation against the court. Even such as acknowledged the justice of Raleigh's punishment, blamed the measure. They thought it cruel to execute a sentence, originally severe, and tacitly pardoned, which had been so long suspended; and they considered it as mean and impolitic, even though a new trial had been instituted, to sacrifice to a concealed enemy of England, the only man in the kingdom whose reputation was high for valour and military experience.

Unhappily for James, the intimate connexions which he was endeavouring to form with Spain, in themselves disgustful to the nation, increased the public dissatisfaction. Gondomar, ambassador from the court of Madrid, a man capable of the most artful flattery, and no stranger to hereditary pride, had proposed a match between the prince of Wales and the second daughter of his Catholic Majesty; and in order to render the temptation irresistible to the English monarch, whose necessities were well known, he gave hopes of an immense fortune with the Spanish princess. Allured by the prospect of that alliance, James, it has been affirmed, was not only induced to bring Raleigh to the block, but to abandon the elector Palatine, his son-in-law, and the protestant interest in Germany, to the ambition of the house of Austria. This latter suspicion completed the odium occasioned by the former, and roused the attention of parliament.

Frederic V., elector Palatine, had been induced, by the persecuted protestants, to accept the crown of Bohemia, contrary to the advice of the king of England, his father-in-law; and was chased from that kingdom, and stript of all his hereditary dominions, by the power of the emperor Ferdinand I., supported by the Spanish branch of the house of Austria, in spite of the utmost efforts of the Evangelical Union, or protestant body in Germany, though assisted by the United Provinces. The news of these disasters no sooner reached England, than the voice of the nation was loud against the king's inactivity. People of all ranks were on fire to engage in the defence of the distressed Palatine, and rescue their protestant brethren from the persecutions of the idolatrous catholics, their implacable and cruel enemies. In this quarrel they would cheerfully have marched to the extremity of Europe, have inconsiderately plunged themselves into a chaos of German politics, and freely have expended the blood and treasure of the kingdom. They therefore regarded James's neutrality as a base desertion of the cause of God and of his holy religion; not reflecting, that their interference in the wars on the continent, however agreeable to pious zeal, could not be justified on any sound maxims of policy.

The king's ideas relative to this matter were not more liberal than those of his subjects, but happily, for once, they were more friendly to the welfare of the nation. Shocked at the revolt of a people against their prince, he refused on that account, to patronize the Bohemian protestants, or to bestow on his son-in-law the title of king, although he owned that he had not examined their pretensions, privileges, or constitution. To have withdrawn their allegiance from their sovereign, under whatever circumstances, was, in his eye, an enormous crime, and a sufficient reason for denying them any support; as if subjects must be ever in the wrong, when they stand in opposition to those who have acquired, or assumed authority over them, how much soever that authority may have been abused.

The Spanish match is likewise allowed to have had some influence upon the political sentiments of James, on this occasion. He flattered himself that, in consequence of his son's marriage with the Infanta, and the intimate connexions it would form between England and Spain, besides other advantages, the restitution of the Palatinate might be procured from motives of mere friendship. The principal members of the House of Commons, however, thought very differently. That projected marriage was the great object of their terror. They saw no good that could result from it, but were apprehensive of a multitude of evils, which, as the guardians of public liberty and peace and happiness, they thought it their duty to prevent. They accordingly framed a remonstrance to the king, representing the enormous growth of the Austrian power, become dangerous to the liberties of Europe, and the alarming progress of the catholic religion in England. And they entreated his majesty instantly to take arms in defence of the Palatine, to turn his sword against Spain, whose treasures were the chief support of the catholic interest over Europe; and to exclude all hope of the toleration or re-establishment of popery in the kingdom, by entering into no negotiation for the marriage of his son, Charles, but with a protestant princess. Yet more effectually to extinguish that idolatrous worship, they requested that the fines and confiscations to which the catholics were subject, by law, should be levied with the utmost rigour; and that the children of such as refused to conform to the established worship should be taken from their parents, and committed to the care of protestant divines and schoolmasters.

Inflamed with indignation at hearing of these instructions, which militated against all his favourite maxims of government, James instantly wrote to the speaker of the House of Commons, commanding him to admonish the members, in his majesty's name, not to presume to meddle with any thing that regarded his government, or with deep matters of state, as above their reach and capacity, and especially not to touch on his son's marriage with a daughter of Spain, nor to attack the honour of that king, or any other of his friends and confederates. Conscious of their strength and popularity, the commons were rather roused than intimidated by this imperious letter. Along with a new remonstrance, they returned the former, which had been withdrawn; and maintained, That they were entitled to interpose with their counsel in all matters of government; and that entire freedom of speech, in their debates on public business, was

their antient and undoubted right, and an inheritance transmitted to them from their ancestors.

The king's reply was keen and ready. He told the house, That their remonstrance was more like a denunciation of war than an address of dutiful and loyal subjects; that their pretension to inquire into all state affairs, without exception, was a plenipotence to which none of their ancestors, even during the weakest reigns, had ever dared to aspire: and he closed his answer with the following memorable words, which discover a considerable share of political sagacity: "Although we cannot allow of your style, in mentioning your antient and undoubted right and inheritance, but would rather have wished, that ye had said, that your privileges were derived from the grace and permission of our ancestors and us (for the most of them grew from precedents, which shew rather a toleration than inheritance); yet we are pleased to give our royal assurance, that as long as you contain yourselves within the limits of your duty, we will be as careful to maintain and preserve your lawful liberties and privileges, as ever any of our predecessors were, nay, as to preserve our own royal prerogative."

Alarmed at this dangerous insinuation, that their privileges were derived from royal favour, the commons framed a protest, in which they opposed pretension to pretension, and declared, "That the liberties, franchises, privileges, and jurisdictions of parliament are the antient and undoubted birth-right and inheritance of the subjects of England; and that the arduous and urgent affairs concerning the king, state, and defence of the realm, and of the church of England, and the maintenance and making of laws, and redress of grievances, which daily happen within the realm, are proper subjects, and matter of counsel or debate in parliament; and that in handling and proceeding on these businesses, every member of the house of parliament hath, and, of right, ought to have, freedom of speech to propound, treat, reason, and bring to conclusion the same."

The subsequent transactions of James's reign were neither numerous nor important. They afford us, however, a precious picture of the weakness and extravagance of human nature; and therefore deserve our attention, as observers of the manners as well as of the policy of nations, and of their vices and follies, no less than the respectable qualities of men.

The Spanish match was still the king's favourite object. In order to facilitate that measure, he dispatched a gentleman of the name of Digby, soon after created earl of Bristol, as his ambassador to the court of Madrid, while he softened at home the severity of the laws against popish recusants. The same religious motives which had hitherto made the Spaniards averse against the marriage, now disposed them to promote it. They hoped to see the catholic church freed from persecution, if not the antient worship re-established in England, by means of the Infanta; and so full were they of this idea, that Bristol, a vigilant and discerning minister, assured his master, that the Palatine would not only be restored to his dominions, but, what was still more agreeable to the needy monarch, that a dowry of two millions of pesoes, or about five hundred thousand pounds sterling, would accompany the royal bride.

This alliance, however, was still odious to the English nation; and Buckingham, become jealous of the reputation of Bristol, by a most absurd adventure contrived to ruin both him and the negotiation. On purpose to ingratiate himself into the favour of the prince of Wales, with whose candid turn of mind he was well acquainted, he represented to him the peculiar unhappiness of princes, in commonly receiving to their arms an unknown bride; one not endeared by sympathy, nor obliged by services, wooed by treaties alone, and attached by no ties but those of political interest; that it was in his power, by going into Spain in person, to avoid all these inconveniencies, and to lay such an obligation on the Infanta, if he found her really worthy of his love, as could not fail to warm the coldest affections; that his journey to Madrid, so conformable to the generous idea of Spanish gallantry, would recommend him to the princess under the character of a devoted lover and daring adventurer; and, at the same time, would afford him a glorious opportunity of chusing for himself, and examining with his own senses the companion of his future life, and the partner of his bed and throne.

These arguments made a deep impression on the affectionate temper of Charles. He obtained, in an unguarded hour, his father's consent to the Spanish journey; and off the two adventurers set, to the great uneasiness of James; who, as soon as he had leisure for reflection, became afraid of bad consequences resulting from the unbridled spirit of Buckingham, and the youth and inexperience of his son. His apprehensions were but too well founded; yet, for a time, the affairs of the prince of Wales wore a very promising and happy appearance at Madrid. Philip IV. one of the most magnificent monarchs that ever sat on the Spanish throne, paid Charles a visit immediately on his arrival, and expressed the utmost gratitude for the confidence reposed in him. He gave him a golden key, which opened all his apartments, that the prince might, without any introduction, have access to him at all hours. He took the left hand of him on every occasion and in every place, except in the apartments assigned to Charles; a distinction founded on the most perfect principles of politeness: "For here," said Philip, "you are at home." He was introduced into the palace with the same pomp and ceremony that attend the kings of Spain at their coronation. All the gaols were thrown open, and all the prisoners received their freedom, as if the most fortunate and honourable event had happened to the monarchy.

Independent of his enthusiastic gallantry toward the Infanta, and the unparalleled confidence which he had placed in the honour of the Spanish nation, by his romantic journey to Madrid, the decent reserve, and modest deportment of Charles, endeared him to that grave and formal people, and inspired them with the most favourable ideas of his character; while the bold manner, the unrestrained freedom of discourse, the sallies of passion, the levity and the licentiousness of Buckingham, rendered him odious to the whole court. The grandees could not conceal their surprise, that such an unprincipled young man, who seemed to respect no laws, divine or human, should be allowed to obtrude himself into a negotiation, already almost conducted to a happy issue, by so able a statesman as Bristol: and the ministry hinted a doubt of the sufficiency of his powers, as they had not been confirmed by the privy council of England, in order

to prevent him from assuming the merit of the matrimonial treaty. He grossly insulted, and publicly quarrelled with Olivarez the prime minister; a circumstance that drew on him yet greater detestation from the Spanish courtiers, who contemplated with horror the Infanta's future condition, in being exposed to the approaches of such a brutal man.

Sensible how much he was hated by the Spaniards, and dreading the influence which the court of Madrid would acquire in England, in consequence of the projected marriage, Buckingham resolved to poison the mind of the prince, and, if possible, to prevent the nuptials from taking place: and he effected his purpose. But history has not informed us by what arguments he induced Charles to offer so heinous an affront to the Spanish nation, after such generous treatment, and to the Infanta, whom he had gone so far to visit, and for whom he had hitherto expressed the warmest attachment. In regard to these we are totally in the dark. For although we may conjecture, from his subsequent conduct, that they were of the political kind, we only know with certainty, that when the prince of Wales left Madrid, he was firmly determined to break off the treaty with Spain, notwithstanding all his professions to the contrary: that, when Buckingham arrived in England, he ascribed the failure of the negotiation solely to the insincerity and duplicity of the Spaniards; that, by means of these false representations, to which the king and prince of Wales merely gave their assent, he ingratiated himself into the favour of the popular party; and that the nation eagerly rushed into a war against the Spanish monarchy, in order to revenge insults it had never sustained.

The situation of the earl of Bristol at the court of Madrid, was now truly pitiable; nor were the domestic concerns of that court a little distressing, or the king of England's embarrassment small. To abandon a project, which had during so many years, been the chief object of his wishes, and which he had now unexpectedly brought to so desirable a crisis, a rupture with Spain, and the loss of two million of pesoes, were prospects by no means agreeable to the pacific temper and indigent condition of James: but finding his only son averse to a match which had always been odious to his people and opposed by his parliament, he yielded to difficulties, which he wanted courage and strength of mind to overcome.

It was now the business of Charles and Buckingham to seek for pretences, by which they could give some appearance of justice to their intended breach of treaty. They accordingly employed many artifices, in order to delay or prevent the espousals; and, those all proving ineffectual, Bristol at last received positive orders not to deliver the proxy, which had been left in his hands, until security was given for the full restitution of the Palatinate.

The king of Spain understood this language. He was acquainted with Buckingham's disgust, and had expected that the violent disposition, and unbounded influence of that favourite, would leave nothing unattempted to embroil the two nations. Resolved, however, to demonstrate to all Europe his sincerity, and to throw the blame where it was due, he delivered into Bristol's hands a written promise, binding himself to procure the restoration of the elector Palatine. And when he found that this concession gave no satisfaction

to the court of England, he ordered the Infanta to lay aside the title of princess of Wales, which she had borne after the arrival of the dispensation from Rome, and to drop the study of the English language; commanding, at the same time, preparations for war to be made throughout all his extensive dominions.

Bristol, who, during Charles's residence in Spain, had always opposed, though unsuccessfully, his own wise and well tempered counsels to the impetuous measures suggested by Buckingham; and who, even after the prince's departure, had strenuously insisted on the sincerity of the Spaniards in the conduct of the treaty, as well as the advantages which England must reap from the completion of it, was enraged to find his successful labours rendered abortive by the levities and caprices of an insolent minion. But he was not surprised to hear that the favourite had afterward declared himself his open enemy, and thrown out many injurious reflections against him, both before the council and parliament.

Conscious, however, of his own innocence, Bristol prepared to leave Madrid, on the first order to that purpose; although the catholic king, sorry that this minister's enemies should have so far prevailed, as to infuse prejudices into his master and his country against a servant who had so faithfully discharged his duty to both, entreated him to fix his residence in Spain, where he should enjoy all the advantages of rank and fortune, rather than expose himself to the inveterate malice of his rival, and the ungovernable fury of the English populace.

Bristol's reply was truly magnanimous. While he expressed the utmost gratitude for that princely offer, he thought himself obliged, he said, to decline it; that nothing would more confirm all the calumnies of his enemies than remaining at Madrid; and that the highest dignity in the Spanish monarchy would be but a poor compensation for the loss of that honour, which he must endanger by such exaltation. Charmed with this answer, which increased still farther his esteem for the English ambassador, Philip begged him at least to accept a present of ten thousand ducats, which might be requisite for his support, until he could dissipate the calumnies of his enemies; assuring him, at the same time, that his compliance should for ever remain a secret to all the world, and could never come to the knowledge of his master. "There is one person," replied the generous nobleman, "who must necessarily know it: he is the earl of Bristol, who will certainly reveal it to the king of England!"

The king of England was unworthy of such a servant. Bristol, on his return, was immediately committed to the Tower. In vain did he demand an opportunity of justifying himself, and of laying his whole conduct before his master. Buckingham and the prince of Wales were inexorable, unless he would acknowledge his misconduct; a proposal which his high spirit rejected with disdain. After being released from confinement, he was therefore ordered to retire to his country seat, and to abstain from all attendance in parliament.

In consequence of the rupture with Spain, and the hostile disposition of the parliament, an alliance was entered into, as we have formerly had occasion to notice, between France and England, in conjunction with the United Provinces, for restraining the ambition of Austria, and recovering the Palatinate. A treaty of marriage was, about the

same time negotiated, between the prince of Wales and Henrietta of France, sister to Lewis XIII., and daughter to Henry IV., an accomplished princess, whom Charles had seen and admired in his way to Madrid, and who retained, during his whole life, a dangerous ascendency over him, by means of his too tender and affectionate heart.

This match was highly agreeable to James; who, although well acquainted with the antipathy of his subjects against any alliance with catholics, still persevered in a romantic opinion, suggested by hereditary pride, that his son would be degraded by receiving into his bed a princess of less than royal extraction. He did not live, however, to see the celebration of the nuptials; but died, in the fifty-ninth year of his age, soon after the failure of the expedition under count Mansfeldt, for the recovery of the Palatinate, which we shall hereafter have occasion to mention, in treating of the affairs of Germany.

That James was contemptible as a monarch must perhaps be allowed; but that he was so as a man, can by no means be admitted. His disposition was friendly, his temper benevolent, and his humour gay. He possessed a considerable share of both learning and abilities, but wanted that vigour of mind and dignity of manner, which are essential to form a respectable sovereign. His spirit, rather than his understanding, was weak; and the loftiness of his pretensions, contrasted with the smallness of his kingly power, only perhaps could have exposed him to ridicule. Notwithstanding the ungracefulness of his person, and the gross familiarity of his conversation, his turn of mind inclined him to promote the arts, both useful and ornamental; and that peace which he loved and so timidly courted, was favourable to industry and commerce. It may therefore be confidently affirmed, That in no preceding period of the English monarchy was there a more sensible increase of all the advantages which distinguish a flourishing people, than during the reign of this despised prince.

Of six legitimate children, borne to him by Anne of Denmark, James left only one son, Charles I. now in the 25th year of his age; and one daughter, Elizabeth, married to the elector Palatine.

We now enter upon a reign pregnant with memorable incidents. We shall behold a contest between a king and his parliament, commenced by each party under the ostensible, and perhaps the actual idea of merely preventing the encroachments of the other. The generous spirit of liberty will appear, in many instances, degraded by the pernicious mixture of bigotry and faction; and the proud pre-eminence of royalty will be seen to overleap the boundaries of the constitution, and deviate into occasional exertions of tyrannic power.

In the delineation of the turbulent scenes of this reign, it is extremely difficult for any writer to secure to his labours the approbation of every party, or even after using the utmost caution, to be certain that he is totally divested of partiality or prejudice.

James was succeeded by his son Charles I., who ascended the throne amidst the highest praises and caresses of his subjects, but soon found them divided in their religious and political opinions, and inflamed, in some instances, with the most violent hatred

of each other. The king himself inherited from his father very lofty notions of the royal prerogative, and a violent attachment to episcopacy. He was also destitute of that insinuating address, and those conciliatory manners, which might have been usefully employed in soothing the [illegible] party, and in allaying the ardour of popular zeal.

His marriage with the princess Henrietta Maria, whom, in his name, the duke of Chevreuse had espoused at Paris, produced, as might naturally be expected, a long train of unfortunate consequences. Before her appearance in this realm, Charles, in compliance with the private stipulations of the nuptial treaty, had indulged twenty Romish priests with a full pardon for their violation of the laws against popery. The catholics were greatly pleased with a match which promised them a relaxation of the rigour of the law; but the protestant part of the nation conceived a violent disgust to an alliance, which held out a favourable prospect to a sect proscribed by law, and odious for its cruelty.

When the new parliament met, Charles recommended to the assembly a vigorous prosecution of the war which the late king had commenced by the advice of his subjects. The lord keeper then urged the expediency of a considerable supply, alledging that the last grant had been consumed in necessary expences. When the commons proceeded to business, some individuals recommended a delay of supplies, till a redress of grievances should have been secured; but, as the plague then raged in the capital (for it is remarkable that the reign of Charles, as well as that of his father, commenced with a furious pestilence), the deliberations on the royal necessities were hastened, and two subsidies were voted to the new sovereign.

The smallness of this grant has drawn forth various reflections from successive historians; but of all the reasons which have been, or may be assigned for it, the following seems to be the most probable. The satisfaction which the late parliament had evinced at the dissolution of the Spanish treaty, had been since allayed by the French alliance, which, in the opinion of those who detested popery, portended as much danger to the protestant cause as had been dreaded from the union with the Infanta. This circumstance alone was sufficient, from the strong aversion of puritans to the Romish faith, to kindle in that party a jealousy of the court; and, as their sentiments had a great sway in the lower house, an unwillingness to gratify the king was the result. It may also be supposed, that the imprudence of the ministry in the direction of the late military enterprise had produced strong doubts of the capacity and judgment of the duke of Buckingham, the chief author of the counsels of the British cabinet; and that the parliament began to contract a disgust to the continuance of a war, which promised little success, when conducted by inexperienced hands. Another inducement to such a display of parsimony in the commons, may, perhaps, have arisen from the prevailing spirit of liberty. They suspected that Charles had imbibed those high notions of prerogative which had been cherished by the deceased king; and were apprehensive that he would assert his pretensions with greater spirit than his pusillanimous and inactive father. Hence they were desirous of providing an early check to eventual encroachments on the privileges of the people; and, by keeping their monarch in a state of necessitous

dependence, they hoped to secure the preservation of their own rights and privileges and the liberties of the country.

As the fury of the pestilence increased, Charles adjourned the parliament to Oxford, where he endeavoured to conciliate the liberality of the commons, by an explicit detail of the state of his affairs, and a fresh appeal to their sense of the honour and dignity of their sovereign and of the nation, which loudly called for their support of those measures into which their advice had impelled the late king.

During the recess, the minds of the people had been greatly inflamed against Charles and the duke of Buckingham, by a recent discovery. At the earnest desire of the French king, James had promised to reinforce that prince's fleet with one ship of war and seven merchantmen Lewis alledged that these vessels were to be employed against the Genoese ; but, when Charles had executed his father's promise, it appeared that they were intended to act against the Huguenots. Pennington, the commander of the English reinforcement, sailed to Dieppe, where he received orders from the duke to deliver up his squadron to such persons as the king of France should appoint. But his men refused compliance, declaring that they would rather die than become subservient to the ruin of their Protestant brethren ; and, weighing anchor with the connivance of the commodore, returned to the Downs. Charles then sent a peremptory message to Pennington, requiring him to surrender his fleet to the French, and that officer immediately sailed back to Dieppe, but could not overcome the strong reluctance of his men, who were so resolute in declining the odious service on which the king wished to force them, that all of them, except one, quitted the ships. One of the vessels, under the command of sir Ferdinando Georges, hastened back to England ; and, the rest being yielded to the French, were speedily manned by sailors of that nation, and took part in an engagement between the duke of Montmorenci and the Huguenot fleet, in which the former had the advantage

No small degree of clamor pervaded the nation when these circumstances were fully known ; and the king and the duke were reproached as betrayers of the protestant cause, to which both had repeatedly professed a warm attachment. The commons partook of the general spirit of their constituents ; they were inclined to apprehend that their religion was exposed to danger from the indifference which Charles and his favourite minister had shown to its interests ; they were disgusted at the relaxation of the penal laws against catholics ; and deemed it necessary to exert themselves in defence of the national faith. In a petition which they prepared, and which was supported by the concurrence of the peers, they expressed their dread of the perils with which they supposed the established church to be environed, stated the causes of the increase of popery in the realm, suggested a series of "remedies against that outrageous and dangerous disease," and implored the deliberate attention of his majesty to the points which they recommended. Charles, though displeased at their intolerant zeal, thought proper to give a favourable answer to their demands, and promised to enforce the laws against recusants

The state of the public affairs gave rise to frequent and warm debates in the lower

house. It was affirmed by the leaders of the opposition, that the king gave way to evil counsel; that the deficiency of the finances arose from the improvidence, neglect, and prodigality, of the administration: that the schemes of the cabinet were precipitately formed, and unsupported by the maxims of prudence or expediency; that persons of no wisdom or experience were suffered to guide the helm: and that various grievances prevailed, which the sovereign should be required to redress, before supplies were granted to his solicitations. It was proposed by some, that an enquiry should be made into the conduct of the duke of Buckingham, particularly with regard to the dissolution of the Spanish treaty, and the negotiation of the French alliance. Other proposals and remarks, of a nature that disgusted the court, were lavishly thrown out by the opposite party; and the whole weight of ministerial influence could not procure the most trifling supply, without the unpleasing appendage of extorted concessions.

Charles could not witness, without indignation, the acrimonious and incompliant disposition of the commons: and, his displeasure being inflamed by the insinuations of Buckingham, he resolved on the dissolution of the parliament; a measure which he immediately put in execution. This was doubtless an imprudent step, ill calculated to allay the rising jealousies of the people; and, though the behaviour which occasioned it may be alledged by way of extenuation, it argued a warmth and precipitancy which could not be deemed strictly consonant with the true dignity of a monarch.

When the pestilence had subsided, the king ordered a public thanksgiving throughout the realm; and as his coronation had been delayed by that calamity, he was now formally invested with the English diadem. Soon after this solemnity, he opened a new parliament, which his necessities had induced him to convoke. Sir Thomas Coventry, who had lately succeeded bishop Williams in the station of lord-keeper, was commanded to deliver his majesty's sentiments to the two houses; and, after some pompous compliments to the sovereign, he intimated the expediency of a supply, and recommended the introduction of provident and beneficial laws. From the early debates of the commons, Charles perceived that the same eagerness for the reformation of abuses, the same inquisitorial spirit, which had been displayed by the last assembly, actuated also the present. The efforts of the popular party procured a resolution of the house, that a committee for secret affairs, and another for the examination of grievances, should sit two days in every week. A committee of religion was also appointed; and, in consequence of a report from it, articles were exhibited against Richard Montague, a learned divine, who, in various publications, had advanced such opinions as induced the house to declare him an encourager of popery and arminianism. But the desire of punishing this ecclesiastic was soon absorbed by the more justifiable prosecution of an undeserving favorite, who ruled his sovereign with arbitrary sway, and whose character and disposition rendered him unworthy of public trust, and even of that transient popularity which he had acquired near the close of the preceding reign.

The duke of Buckingham was attacked in both houses of parliament. Among the peers the earl of Bristol exhibited a series of articles against the duke, whom he represented as having advised Charles to change his religion, taken unwarrantable steps with

a view of breaking off the match with the infanta, occasioned the disappointment of the hopes of the prince Palatine, and deceived the parliament by a false narrative. While these charges occupied the attention of the peers, the commons demanded a conference for the purpose of impeaching the duke. The offences which they imputed to this minister were comprised in 13 articles; the chief of which were, that he had neglected the due execution of his office of high admiral; that he had unjustly detained a French vessel, and seized the greater part of the cargo; that he had extorted 10,000*l* from the East India Company; that he had delivered English vessels to the king of France, to be employed against the Huguenots; that he had put offices and honors to sale; had procured exorbitant grants from the crown; and had tampered with the health of his late sovereign.

The displeasure which Charles felt at the impeachment of his favorite, vented itself on sir Dudley Diggers and sir John Elliot, two of the managers of the prosecution. Some expressions which they had used were reported to him with exaggeration; and he immediately committed the two obnoxious orators to the tower; but he soon found it prudent to release them.

The duke gave plausible answers to each of the articles; and, if a regular trial had taken place, it is probable that he would have invalidated some of them: but the king's indignation was so warm, that he resolved to crush the proposed inquiry, regardless of the censorious remarks and unfavourable constructions of the public. Having sent a haughty epistle to the speaker, intimating his desire that the bill of supply should pass the commons without delay or condition, he found that, though they had voted a fourth subsidy, they were determined on with-holding the actual grant of aid till he should discharge all popish recusants from offices of trust and authority, banish the accused duke from his presence, and agree to such requests as they might think reasonable. Impatient of the uncourtly treatment which he had received, and unwilling to encourage, by a facility of concession, a series of unpleasing demands, he signed a commission for dissolving the parliament. The peers, learning his intention, begged him to defer it; but he was so obstinately bent on the gratification of his spleen and resentment, that he refused to comply with the desire of his hereditary counsellors, and, with a rashness into which he was too frequently hurried, enforced the odious measure of an abrupt dissolution.

This measure was followed by a declaration in which the king endeavoured to palliate his precipitancy, by representing his conduct as the natural consequence of the incompliant spirit of the commons, who had outraged his feelings, despised his gentle admonitions, neglected their engagements for the defence of the realm, and seemed to triumph in his necessities. The commons, in justification of their proceedings, published a remonstrance, which they intended to have presented to his majesty before the dissolution. In this performance, they made warm professions of their loyalty and patriotism; complained of the misconduct of the duke of Buckingham, of the imprisonment of their members, of the king's menace of using new counsels, and of various griev-

ances under which the nation laboured; entreated Charles to dismiss his favorite from the administration, and promised, in the event of his compliance, that they would speedily gratify his desire of supply, and would proceed with alacrity to the accomplishment of such measures as would tend to the support of his allies, and to the stability, wealth, and honour, of his kingdom. The king, in a proclamation, expressed his displeasure at the injurious expressions and calumnious remarks contained in the remonstrance, and commanded that all persons who had copies of it in their possession, should immediately commit them to the flames.

His indignant impatience having deprived him of parliamentary grants, Charles had recourse to such means of supply as some of his predecessors had adopted. He had raised, however, no large sum when he received intelligence that the king of Denmark, whose operations had been obstructed by the irregular payment of his English subsidy, had been defeated with great loss by count Tilly, who commanded the Imperial army. To provide for the effectual relief of his northern ally, to whom he now sent the 6,000 British soldiers who had served in the army of the states-general, Charles resolved to demand a general loan, in that proportion which each individual would have borne, if the late vote of supply had passed into a law. Though he promised to reimburse his subjects in a twelvemonth, the demand occasioned great disgust and clamor, for it was strongly suspected, that the royal promise would not be strictly observed; and the public also apprehended, that, if the requisition should be tamely submitted to, the king would be encouraged to a disuse of parliaments. But, the greater was the discontent, the more strenuously did Charles prosecute his purpose. Those who refused to comply with his wish, or promoted by their exhortations the non-compliance of others, were subjected to various kinds of arbitrary treatment. Many were punished for their insubmissive behaviour by being compelled to serve either in the army or navy; some were harrassed by the intrusion of an unusual number of soldiers, who were quartered even in private houses; several were employed against their will in expensive services; and not a few of the gentry were committed to prison. These exertions of power could not but augment the unpopularity of the government; and complaints of insulted privilege and violated freedom resounded through the nation.

The duke of Buckingham having found means to involve his master in a war with France, conducted in the next year an unsuccessful expedition to the isle of Rhe, in which the English lost about 2,000 men by the sword while many individuals of their number perished by disease.

The parliament having again assembled, the king opened the session with an injudicious harangue, in which he urged the two houses to provide for the defence of the church and state and the support of their protestant allies, adding, that if the members did not perform their duty he would use other means which God had put into his hands. The commons, neither intimidated by this threat'ning nor soothed by the promises which Charles afterwards gave them to maintain all his subjects in the just freedom of their persons and safety of their estates, employed themselves in drawing up a petition of

right, in which they desired the lords to concur. Having received the assent of both houses, this instrument was at length presented to the king, who, after some days of evasive delay, enacted it into a law, in the usual manner.

The purport of the petition of right was, that no person should be compelled to the contribution of any "gift, loan, benevolence, tax, or such like charge, without common consent by act of parliament:" that none should be molested for a refusal of such demands; that no freeman should be imprisoned or retained without the assignment of a legal cause; that no soldiers or mariners should be quartered in any house, against the will of the possessors; and that no commissions for martial law should be granted.

The remainder of the sessions, after granting a supply, was chiefly occupied in disputes respecting the right of levying the customs. The parliament was prorogued on the 26th of June, and did not reassemble till the beginning of the following year.

During this interval, the obnoxious duke of Buckingham was deprived of his life, by the hand of violence. John Felton, who had served as lieutenant in the expedition to the isle of Rue, on which occasion his captain had been mortally wounded, had been disgusted at the duke's refusal of the vacant company to his solicitations; and, as he was in indigent circumstances, his displeasure had received some increase from the non-payment of his arrears. The general clamours of the public against Buckingham made a strong impression on the feelings of the disappointed lieutenant: and a perusal of that remonstrance, in which the commons had represented the duke as the principal author of all the grievances of the nation, and as a betrayer of the honour and interest of his country, concurred with the seditious effusions of some of the ecclesiastical advocates of opposition, to urge him to the assassination of an unpopular minister, who was, at the same time, an object of his personal resentment. Having gained admittance into the duke's lodgings at Portsmouth, he stabbed him in the left side, while he was conversing with one of his officers. The unfortunate victim instantly exclaimed, "The villain has killed me," and pulling out the knife, fell to the ground, and quickly expired. The murderer had an opportunity of escaping, but his enthusiasm prompted him to glory in his crime, and to decline all thoughts of flight. Being interrogated with regard to his motives for so atrocious a deed, he affirmed that they were of a public nature, and that he considered the destruction of the great enemy of the state as a meritorious service both to God and his country. We are informed however, that he afterwards expressed a strong compunction for his crime, and that he besought the judges to order his offending hand to be struck off before his execution.

The session of parliament, which was held in the year 1629, was more remarkable for its abrupt termination, than for any business which was transacted in it. Sir John Elliot, on the second of March, having moved for an inquiry into the conduct of sir Richard Weston, the speaker, sir John French produced the royal message for another adjournment. Several members disputed this order, affirming that it belonged to the house to adjourn itself; and Elliot, having renewed his attack on the lord treasurer, offered a remonstrance against the further exaction of tonnage and poundage. The speaker and clerk having refused to read it, he read it himself to the house, and then

desired that the former would put the question for adopting or rejecting it. He replied, that he had received a peremptory command from the king, to desist from all parliamentary business, as soon as he had mentioned the order for an adjournment. He then left the chair, and clamour and confusion immediately ensued. Denzil Holles, and other members, drew him back to the chair, and held him in it, notwithstanding his tears and entreaties, and the efforts made for his release by sir Thomas Edmonds and other courtiers. Selden blamed him for his disobedience to the will of the house, and sir Peter Hayman not only reviled him with great acrimony, but proposed that a new speaker should be elected. As he persisted in his refusal of concurring in measures which he knew would be unpleasing to his sovereign, Holles was desired to act as temporary president, and to read the three following articles, viz. that whosoever should attempt to introduce popery or Arminianism, or make any innovations in the true religion, should be reputed a capital enemy to the kingdom and commonwealth; that whoever should advise or promote the collection of tonnage and poundage, without a parliamentary grant, should be deemed an innovater in the government, and a great enemy to the state, and that every individual who should voluntarily pay these duties, when they had not been granted by parliament, should be considered as a betrayer of the liberty of England. These resolutions, so expressive of the bold spirit of those that framed them, were voted, amidst the applausive vociferations of the prevailing party.

The irregular proceedings of the popular leaders were soon communicated to the king, who sent for the serjeant at arms; but the door of the house had been previously locked, and that officer was not permitted to obey the order. Charles then commanded the usher of the black rod to intimate to the commons his desire of their instant adjournment, but they refused to admit the messenger. Enraged at these insults, he sent some of his guards to force the door; but by this time the three resolutions had passed, and the members had separated.

The king's resentment was so inflamed by the behaviour of the patriotic party, that, on the day of the tumult, he signed a proclamation for dissolving the parliament in the ensuing week. In the mean time, sir John Elliot, sir Peter Hayman, sir Miles Hobart, Holles, Selden, Coriton, Long, Strode, and Valentine, were summoned before the privy council, to answer for their behaviour. The four first having made their appearance, underwent a short examination, after which they were sent to the Tower. The five others, being afterwards apprehended, were also committed to prison.

Of the nine gentlemen who had thus exposed themselves to the king's resentment, some remained a long time in confinement, while others, on complying with the terms that were required, namely, security for their good behaviour, and, in some instances, payment of fines, soon recovered their liberty. Elliot, disdaining the thoughts of submission, continued a prisoner till his death, and the public considered him as a martyr in the cause of freedom. He was a man of talent and courage, an eloquent speaker, and an active assertor of the rights of the people.

While Charles was not on the most amicable terms with his subjects, the continuance of foreign war was not desirable. A peace was therefore this year made with France,

which contained no stipulation in favour of the Huguenots, and another was concluded next year with Spain, which confirmed the former treaties, with a promise that Philip would use his interest with the emperor, in favour of the deprived Palatine

The chief favourites of Charles at this period were bishop Laud, the lord-treasurer Weston, and Thomas, lord Wentworth, whose characters we shall here delineate.

Laud was a learned and devout prelate, but bigoted, severe, and implacable. He cherished a warm passion for the aggrandizement of the church, was superstitiously attached to ceremonial observances, and sedulously endeavoured to introduce an uniformity of worship and discipline. He encouraged in the ecclesiastical courts the exercise of a disgusting rigour, and the puritans found him a pertinacious and rancorous enemy. They on the other hand, professed an extraordinary hatred to him, they reviled him as a persecutor of the true religion, and as one who aimed at the re establishment of popery, as an instigator of the king's arbitrary measures, and a foe to the constitutional interests and happiness of the nation. These charges are, perhaps, aggravated; but it is certain. that, though he was averse to the chief doctrines of the papists, he adopted some ceremonies, which bordered on Romish mummery, and, with respect to the advice which his sovereign received from him, it may be justly affirmed, that it did not always flow from the maxims of prudence and moderation, from sentiments of liberality and honour, or from principles of true patriotism.

Sir Richard Weston possessed a mediocrity of abilities and some dexterity in business. He was strongly influenced by ambition, which had induced him to court the favour of the late duke of Buckingham, who had procured for him the office of chancellor of the exchequer, from which he was removed, by the same interest, to that of high treasurer. Thus promoted, he became arrogant and imperious, treated his friends with haughtiness and neglect, and disobliged his powerful patron, who, if he had not been so suddenly cut off, would have removed the treasurer, whom his influence had appointed. Selfish and rapacious, he procured considerable grants from the crown, while he studiously prevented the current of royal bounty from flowing into other channels. Though he enforced the penal laws against the catholics, he was himself considered as a papist in heart, and as that was then a term of high reproach, such a suspicion operated greatly to his prejudice in the minds of the public. In the discharge of his great office, he did not display that provident care and judgment, which were expected from him, and in the counsels which he suggested to Charles, he was more desirous of flattering the monarchial inclinations of that prince, than attentive to the real interest of the community.

Sir Thomas Wentworth was superior to Laud and Weston in political knowledge and general abilities. He was of a bold and active spirit, but of a stern and domineering temper. He was vain of his own endowments, and disdainful of the merits of other men. He had commenced his parliamentary career as an adversary of the court, and had been imprisoned for a refusal of the loan. But his opposition was not so disinterested as to render him impenetrable to the allurements of the royal favour. The offer of a peerage and of ministerial employment relaxed the sinews of his patriotism,

and rendered him a zealous supporter of the administration, which he had before condemned.

Besides these three counsellors of Charles, there was an illustrious female, who had a great influence over him. This was his queen, whose beauty and exterior accomplishments had captivated his heart, and whose spirit, vivacity, and address, had completed the triumph of her personal attractions over the obsequious monarch. As she was distinguished by a warmth and impetuosity of temper, was a bigot to the papal doctrines, and possessed high notions of the royal pre-eminence, she was not perfectly qualified to give judicious advice to the protestant ruler of a free people.

While the king was swayed by the suggestions of these advisers, he retained as little popularity as the ill counsels of the duke of Buckingham had before allowed him to enjoy. They encouraged him in the arbitrary principles which he had imbibed from his father, and stimulated him to the transgression of those limits to which the assertors of constitutional rights wished to confine him.

The abrupt dissolution of three successive parliaments, and the intimations that were given by Charles in a proclamation which he issued soon after his dismission of the third, that he should convoke no more assemblies of that kind, till he should have reason, from the cessation of the present ferment among the people, to expect a greater degree of propriety in the conduct of their representatives, gave a loose to the tongue of censure, and opened the sources of discontent. The menace of ruling without a parliament indicated, in the opinion of many, an intention of governing without regard to law, and it was easy for the popular party to take advantage of that injudicious effusion, and to render it subservient to the propagation of reproach, by insinuating that it was the evident meaning of the court, to subvert the constitution, and establish a system of oppression.

For the space of 11 years (for that was the duration of the period which elapsed between the third and fourth parliaments of this reign) Charles conducted the machine of government according to his own will and pleasure; and, as he had before been guilty of some acts of power, notwithstanding the many checks he had occasionally received from his parliaments, the reader will naturally suppose, that, on the removal of the controul of those assemblies, he did not observe a greater degree of moderation in his proceedings. And, indeed, by the confession of his panegyrists, he had recourse, in that interval, to some practices that were harsh and injudicious, and to others that were inconsistent with the maxims of the constitution.

The king's proclamations were required to operate as laws, and to the decrees of the privy council a general submission was demanded. Pecuniary applications were frequent, and various kinds of exactions prevailed. Tonnage and poundage were collected with rigour; and, on some articles of commerce, the rates were augmented. The antient laws of the forest were revived, that the crown might profit by the penalties; and obsolete statutes were rigorously enforced with the same view. Monopolies of many commodities of ordinary use were granted to those who made liberal offers for the patents. Fines were levied on those, who, having 40*l.* a-year in land, had refused knight-

hood at the coronation of Charles. Inquisitions were made into the validity of titles to crown-lands, and such as could not clearly prove their right were mulcted. By these and other means, some of which were productive of great discontent, did the king endeavour to supply his exigencies.

For the support of these modes of finance, and the protection of such as were concerned in them, the court of Star Chamber, as well as the privy council, assumed an extraordinary and illegal extent of jurisdiction. Trifling offences were punished by the former with enormous fines, and, under the auspices of Laud, a systematic severity pervaded its decrees. The High Commission court was also a source of oppression; and, as the judges of the regular courts of law were subject to removal at the royal pleasure, their sentiments and decisions were generally swayed by their knowledge of the inclinations of their sovereign.

In 1632, Charles paid a visit to Scotland, was received at Edinburgh with general acclamations, and was crowned in the capital by the archbishop of St Andrew's. Two days afterwards he opened a Scotch parliament, which readily granted him a subsidy, and passed several useful statutes with great unanimity; but a strong opposition was made to a bill, which confirmed two acts of the late reign; one for the recognition of the royal prerogative over all persons, and in all causes whatever; and the other for empowering the king to regulate the habits of magistrates and ecclesiastics. The friends of the presbyterian system, apprehensive that Charles would introduce the surplice and other clerical vestments, which they detested as relics of popery, desired the two acts might be separated, as they approved the former, but were displeased with the latter. The king, however, declared that they should not be disjoined; adding, with little regard to the privileges of parliament, that, as he had a list of all the members, he should take exact notice of those who were inclined to serve him, and of those who were not. This attempt to overawe their deliberations, did not prevent the earl of Rothes, and other opponents of episcopacy, from persisting in their dissent to the union of the two acts in one bill; notwithstanding which, it passed according to the king's inclination. Another bill, for the ratification of the late acts concerning religion, produced some debate, because it tended to the establishment of the episcopal system.

It would go beyond the limits of our present design, to relate all the instances of extreme oppression, which were perpetrated, about this time, by this ill-advised prince, and his more guilty ministers: we shall therefore pass on to that glorious struggle for freedom, which has rendered the name of John Hampden dear to the patriots of all succeeding generations. The ship-money, which had been levied without consent of parliament for the maintenance of the navy, had been employed for many purposes of great national benefit; but as it was an illegal exaction, the English were never reconciled to this mode of taxation. They were greatly pleased with the spirit of John Hampden, a man of respectable family and fortune, who, animated with a laudable zeal for the liberties and privileges of the people, resolved to undergo a prosecution from the crown, rather than submit to an arbitrary impost. Being assessed at 20*s.* for an estate in Buckinghamshire, he boldly refused to comply with the demand; and a

process in the exchequer was the consequence of his refusal. All the judges assisted at this important trial, and it formed, for a time, the chief topic of conversation. The cause was elaborately argued on both sides; but as a detail of the arguments would be tedious, we shall only mention the leading points. Oliver St. John opened the business on the part of Hampden, and endeavoured to prove, that the provisions made by law for the general defence of the realm were sufficient, on the present occasion, without the necessity of demanding ship money; that even if the ordinary means of defence were inadequate to the exigency, the only constitutional mode was to have recourse to a parliament for a supply, and that nothing but such a state of war, as should reduce the nation to an obvious extremity of danger, could furnish a pretext for the demand which his client opposed. The solicitor-general, sir Edward Littleton, supported the pretensions of the crown, by affirming, that neither Magna Charta, nor the petition of right, precluded the king from providing for the defence of the realm by that measure which he had now adopted; that it was justified by precedents; and that the interesting considerations of public safety required the exercise of a power so useful and necessary. Robert Holbourne replied to the solicitor, confuted his reasonings, and effectually controverted his precedents. The attorney-general, sir John Bankes, magnified the power of the crown, and quoted such cases as appeared to him to prove that the king was authorised, by the constitution, to levy ship-money in times of national danger, of which he was the sole judge. After an interval of several months, the judges publicly delivered their opinions in this cause. Eight of them declared in favour of the crown; one, though he supported the king's right of demanding supplies in expectance of danger, gave judgment for Hampden, on account of some informalities in the process; two, on the more substantial grounds of constitutional justice, pronounced sentence for the patriot; and the twelfth, being prevented by illness from stating his sentiments in court, signed a certificate, expressive of his opposition to the royal claim.

The continued attempts to introduce episcopacy into Scotland were the source of the greatest discontent among the inhabitants of that kingdom. Not content with testifying their disapprobation by tumultuous violence, they formed themselves into four tables or counsels, one consisting of nobles, the second of gentry, the third of burgesses, and the fourth of ecclesiastics. Commissioners, selected from each of these bodies constituted a general table, the edicts of which were obeyed throughout Scotland with greater alacrity than the injunctions of the king or magistrates. This serious combination soon produced a solemn covenant, by which, after renewing the abjuration of popery, which had been subscribed in the late reign, the confederates bound themselves to oppose the late innovations, to defend the person and authority of the king, while he should maintain their privileges, both civil and religious; and to support each other in the same cause against all persons whatever. This covenant was signed with the utmost eagerness by all denominations of people, and the spirit of resistance spread with rapidity through the Scottish provinces.

Every thing now began to wear a hostile appearance, and though some fruitless negotiations were carried on between the king and covenanters, each side made the most

powerful preparations to decide the contest by the edge of the sword. The covenanters appointed a committee of war for every county, that troops might be levied with the more expedition. They sent agents to the continent, to purchase arms and ammunition, and cardinal Richelieu, by a supply of money, promoted their bold schemes. They blockaded the king's principal castles, erected fortifications at Leith, collected taxes for their own use, and domineered over the country with great arrogance. Their chief, general Lesley, reduced the castle of Edinburgh, and the same fate speedily befel the fort of Dalkeith, and the fortress of Dunbarton. In different counties, several skirmishes passed between the royalists and the covenanters, in which the former were generally unsuccessful

Having obtained pecuniary contributions from his opulent subjects, Charles repaired to York, where he had ordered a rendezvous of his forces. He had sent circular letters to his nobles, commanding their attendance, and a considerable number obeyed his summons. Being reinforced at Durham, he advanced toward the Tweed, with an army of near 20,000 infantry, and above 3000 cavalry.

Information being received in the royal camp, that general Lesley had posted himself on an eminence, at a small distance, the earl of Holland was detached with a body of horse and foot, to reconnoitre the Scots, and attempt to dislodge them. When he had approached them, he sent a trumpeter to demand an immediate retreat; but they ridiculed his message, and he himself thought proper to retire, pretending they far outnumbered his troops. His retreat as much discouraged the royalists as it elevated the hopes of their antagonists. In the mean time, the general want of zeal which seemed to prevail in the royal army, induced Charles to listen to pacific overtures. Commissioners being appointed on each side, the conferences were quickly opened, and a pacification was adjusted in the following manner. The king signed a declaration, in which he consented that all ecclesiastical affairs should be determined by the general assembly of the kirk; and all civil matters by the parliament, and the legal courts of judicature. He also engaged to restore whatever had been seized by his adherents, and to dismiss his fleet and army, on condition that the covenanters should immediately disband their troops, deliver up all their fortresses, make restitution of such private property as they had taken; abstain from illegal meetings, and behave, in every respect, with loyalty and obedience.

This peace was of no long duration: Charles could not prevail on himself to abandon the cause of episcopacy, and secretly intended to seize every favourable opportunity to recover the ground he had lost. The assembly, on the other hand, proceeded with the utmost fury and violence. They voted episcopacy to be unlawful in the church of Scotland; they stigmatised the cânons and liturgy as popish, and justly denominated the high commission a species of tyranny. The parliament which sat after the assembly, advanced pretensions which tended to diminish the civil power of the monarch; and they were proceeding to ratify the acts of assembly, when, by the king's instruction, Traquaire, the commissioner, prorogued them.

On account of these claims, war was recommenced the same year. Charles could

not re-assemble his army without great trouble, expence, and loss of time; on the contrary, the covenanters, in dismissing their troops, had ordered their officers to be ready on the first summons, and warned the soldiers not to think the nation secure from an English invasion. The religious zeal which animated all ranks of the covenanters, made them fly to their standards as soon as the trumpet of alarm was sounded by their leaders.

In 1640, the king drew an army together; but, finding himself unable to support them, was obliged to call a parliament, after an intermission of about 11 years. As the sole design of the king's calling this parliament was to obtain a supply, and the only reason they had for attending it, was to obtain a redress of grievances, it is not to be supposed there could be any good agreement between them. The consequence of this discord was a dissolution, that could not fail to increase the discordant spirit of the nation.

The king, being disappointed of parliamentary subsidies, was obliged to have recourse to other expedients. The ecclesiastical subsidies served him in some stead, and it seemed but just that the clergy should contribute to the expence of a war, which had been, in great measure, of their own raising. He borrowed money from his ministers and courtiers, and so much was he beloved by them, that above 300,000*l.* were subscribed in a few days. Some attempts were made towards forcing a loan from the citizens, but still repelled by that spirit of liberty, which was now become unconquerable. A loan of 40,000*l.* was extorted from the Spanish merchants who had bullion in the Tower. Coat and conduct money for the soldiery was levied upon the counties; an antient practice, which was supposed to have been abolished by the petition of right. All the pepper was bought from the East India company on trust, and sold, at a great discount, for ready money.

These unpopular proceedings increased the general discontent, but enabled the king, though with great difficulty, to march his army, consisting of 19,000 foot and 2000 horse. The earl of Northumberland was appointed general; the earl of Strafford (lord Thomas Wentworth), lieutenant-general; and lord Conway, general of the horse. The Scots were soon ready, with a superior force, and marched to the borders of England. They professed to enter England with no other design than to obtain access to the king, and lay their petition at his feet. At Newburn upon Tyne, they were opposed by a detachment of 4500 men, under Conway, who seemed resolute to dispute with them the passage of the river; the Scots first entreated, with great civility, not to stop them in their march to their gracious sovereign, to whom, they said, they intended to present a loyal petition; and, on receiving a refusal, attacked the English, whom they defeated, with the loss of about 60 men on the side of the vanquished. This trifling rencontre produced more important consequences than could have been expected; for lord Conway was struck with such consternation, that he hastened to Newcastle, and, finding the generality of the troops possessed of the same feelings, retreated to Durham, and even farther southward, with an army of 17,000 men, from an enemy whom the English had frequently routed with a considerable inferiority of numbers.

Charles was induced, by the succession of unfavourable circumstances he had ex-

perienced, to adopt measures of a lenient and pacific nature. He appointed English commissioners to meet those of the Scots at Rippon, where it was agreed that 850*l.* per day should be allowed for the maintenance of the Scottish army during the treaty, that there should be a cessation of hostilities, and that a free commerce should be restored. The king ratified this preliminary agreement, and as the time which the king had lately fixed for the meeting of his fifth parliament approached, he consented, at the desire of his commissioners, to transfer the treaty to London.

When the new parliament assembled, it soon began to display a great fervour of zeal for the redress of grievances. A committee was appointed to inquire into the legality of the tax which was denominated ship-money; and it was unanimously resolved, that such an imposition was repugnant to the laws of the realm, to the common right of property, to former resolutions of parliament, and to the petition of right; that the opinions of the judges in favour of that charge were also illegal, and that the judgment given against Hampden was liable to the same censure. Directions were given to prepare articles of charge against six of the judges, who were respectively obliged to give security for a full submission to the determination of parliament.

Inquiries were also made into the proceedings of the Star Chamber, and other arbitrary courts; and many of those who had suffered by such sentences as the commons deemed unjust, were now relieved. Ecclesiastics, who had been imprisoned or deprived by the prelates, were restored to their liberty and preferments. All who had concurred in any sentence which displeased the commons were now pronounced delinquents, and menaced with persecution. Patents of monopoly were declared to be illegal, all who had obtained them were exposed to the dread of punishment, and persons of that description were expelled from the house. Lastly, the courts of High Commission and Star Chamber were abolished, to the great satisfaction of the nation in general.

Thus far it is admitted, by most liberal and impartial men, that the conduct of the house of commons was, unless in a few instances, agreeable to the spirit of the constitution, and worthy of the purest and most disinterested patriots; but that, in many of the measures to which they now proceeded, revenge and the love of power mingled with their better motives, and, opposed to the arbitrary measures of the court, became the source of those dreadful calamities, which soon after filled the nation with confusion and blood.

The beginning of the year 1641 was chiefly spent in the prosecution of the earl of Strafford. The lords and commons being assembled in Westminster-hall, the trial was opened with the usual forms, the earl of Arundel officiating as high-steward. The managers of the impeachment laboured to prove that the earl had traitorously endeavoured to subvert the fundamental laws and government of the realms of England and Ireland, and to introduce an arbitrary and tyrannical administration; that he had obtained a commission, which conferred on him an unconstitutional power (as president of the council in the north of England), which he had exercised, to the ruin of many individuals; that he had spoken contemptuously of the law, and magnified the authority of the king; that he had represented Ireland as a conquered country, and therefore liable to be ruled

with arbitrary sway, and had followed this maxim in the government of that kingdom. It was also stated by his prosecutors, that he procured a sentence of death to be unjustly passed against lord Mount-morris; had illegally deprived many of the Irish of their liberty and estates; had granted warrants to different bishops, for the exercise of unlawful authority; had framed the customs, and exorbitantly advanced them; had profited by various monopolies, and had practised many unjustifiable methods of enriching himself, at the expence of the Irish; had imposed taxes on them, and levied them by force of arms; had ill treated those who had repaired to England to complain of his tyranny; and (to sum up the remaining articles in a few words) had encouraged the catholics, oppressed the Scottish inhabitants of Ireland, advised the king to declare war against Scotland, urged him to violate the pacification, raised an army in Ireland for the subversion of the liberties of England, instigated his sovereign to a variety of arbitrary acts, and betrayed his trust as lieutenant general of the English army, by promoting the success of the Scots, that the national quarrel might be rendered irreconcileable.

This complicated charge was enforced with great skill and eloquence by Pym, Maynard, and other managers, and repelled, with equal ability, by the sagacious and intelligent earl. He denied some of the charges, extenuated others, and insisted on the insufficiency of all, either taken singly or collectively, to constitute the crime of treason.

To the principal articles, it may not be improper to mention the substance of his answers. With regard to his conduct in Ireland, he indirectly acknowledged, that he had, on some occasions exceeded his jurisdiction, and performed such acts as were not strictly consistent with the ordinary course of legal proceedings; but these acts were justified by the incidental necessity of the case, by the conduct of former governors, and by that imperfect state of Hibernian subordination, which required a strong exercise of executive power. And even if he had acted thus without any manner of authority, it could not properly be called a subversion, but rather a diversion of the law; as the substantial effects of the law had taken place, though in a way somewhat different from the usual process. If he had deviated from the strict line of law, he had never been actuated by those despotic motives which were imputed to him; he had not aimed at the establishment of tyranny, but had been influenced by views of equity and expediency, or by the casual dictates of political necessity. With respect to his conduct, as president of the northern council, he justified all his acts by the instructions annexed to his commission the extent of which had not been regulated by his advice. The different counsels which he had suggested to the king, were, in some instances, he said, grossly misrepresented, by the witnesses who had appeared against him, and in others wholly falsified. That he had concurred, with other privy counsellors, in a general vote, intimating that the demands of the Scots were exorbitant, and their perseverance in them would render it expedient to employ force he did not deny; but such an opinion was far from being treasonable. That he had advised his majesty to reduce his English subjects to perfect submission, by means of an Irish army, was he said, a false assertion; and though he allowed that he said the king was absolved from ordinary rules of government, he had

expressly confined the observation to cases of invasion or imminent danger and inevitable necessity, and urged the propriety of making reparation to individuals, as soon as the perils had ceased.

After mature deliberation, the earl's prosecutors were of opinion that his condemnation could not be so easily obtained from the lords in a judicial way, as in a mode which would leave them more at liberty to follow the dictates of their private judgment, without a punctilious adherence to the rules of law, or to the rigid doctrines of evidence. A bill of attainder was therefore brought in against him, which passed through the lower house with some opposition, and at length received the sanction of a small majority of the assembled lords. Charles was extremely unwilling to sacrifice the life of one whom he considered as an able and faithful servant, therefore made several proposals to both houses, to have the sentence changed to some milder punishment; and not till he had received the consent of the unfortunate earl, would he give his assent to the fatal bill. But the earl seems to have repented of this magnanimity; for, when he found that his advice had been taken, he is said to have exclaimed, "Put not your trust in princes nor in the sons of men, for in them there is no salvation." His behaviour at the fatal spot was calm and dignified, and he submitted his neck, without apparent reluctance, to the stroke of the executioner.

For the support of the proceedings of the commons, particularly against the earl of Strafford, the Scottish troops had prolonged their continuance in England. Their demand of indemnification had procured from the parliament of this kingdom a vote for allowing them 300,000*l.* by way of brotherly assistance, exclusive of the constant payment of 850*l.* per diem, for their maintenance. After some discussion, the demands which they had made on their invasion were granted, as likewise most of their subsequent requisitions. They then returned into their own country, triumphing in the success of their efforts.

While the king was employed in Scotland, which he soon after visited, in re-establishing the tranquillity of the north, a rebellion, accompanied with circumstances of horrid barbarity, arose in Ireland. The majority of the inhabitants of that kingdom were of the catholic persuasion, and deeply resented the mildest exertion of those laws, which were thought necessary, in that age, in order to repress the advocates of popery.

The chief projectors of this rebellion were Roger More, Conor, lord Mac-Guire, and sir Phelim O'Neile; men who derived their descent from very considerable families of the original natives, but whose fortunes were greatly reduced. A son of that earl of Tyrone, who had given such disturbances to the government of Elizabeth, promoted the views of the conspirators, and solicited aid of cardinal Richelieu, who promised a supply of ammunition, arms, and money. This hereditary rebel, who was then in the Spanish service, would have personally embarked in the revolt, had he not been prevented by death.

Notwithstanding the caution and secresy of the malcontents, some intimation of their intrigues reached the ears of the king, who ordered the lord justice of Ireland to exert his utmost vigilance for securing the public tranquillity. But these governors

paid no attention to the royal advice, but remained in a state of supine negligence, till the day that preceded the eruption of the rebellion. They were then roused from their lethargy, by the alarming intelligence of the conspiracy, communicated by a protestant, to whom it had been confidentially imparted by Mac-Mahon, one of the principal agents. Understanding that the reduction of the castle of Dublin was one of the enterprizes which were intended for the following day, they gave proper instructions for the security of that fortress and the defence of the city. Lord Mac-Guire and Mac-Mahon were taken next day, with about 30 of their accomplices. To put the provincial protestants upon their guard, a proclamation was now issued by the governors, intimating the danger to which the king's faithful subjects were exposed, from a most disloyal and detestable conspiracy, and recommending the adoption of immediate precaution for the general safety of the realm.

The insurrection commenced in the province of Ulster, and the first exploit of sir Phelim O'Neile was attended with flagrant treachery. Having apprised the baron of Charlemont that he would pay him a friendly visit at the castle of that town, he was liberally entertained by the unsuspecting peer, and his followers, flocking to the scene of hospitality, took an opportunity of attacking the unarmed garrison, while their chief seized his defenceless host, whom he afterwards murdered. Most of the soldiers were either slain or taken, and O'Neile gained possession of the place. The catholics hastening to his standard, he met with rapid success in his other attempts, and in less than a fortnight, the greater part of Ulster was in the hands of the insurgents. They at first contented themselves with plunder, but their rapacity was soon followed with sanguinary proofs of their rancorous animosity against the protestants. The barbarities of Goths and of Huns, of ferocious pagans and blood-thirsty conquerors, were now renewed by those who pretended to have been humanized by religion, and to whom the arts of civilization had been taught, against individuals with whom they had long lived on social and harmonious terms. The horrors of diabolical cruelty were blackened by infamous treachery, and the ties of consanguinity and alliance served only to stimulate the brutal rage of malignant assassins. The varieties of torture were inflicted with wanton exultations; the mere dissolution of existence being deemed, by the most inhuman members of the rebellious confederacy, an act of insufficient vengeance. Without wounding the feelings of the reader with a detail of the atrocious proceedings of these vindictive bigots against the wretched victims who fell into their hands, of both sexes and of all ages, we shall only observe, in a summary way, that though a great number suffered a speedy death, by being stabbed to the heart, drowned, or hanged, a multitude of others were treated with all the severities of more deliberate revenge.

Roger More, though the primary author of the rebellion, was shocked at the horrid extremities to which O'Neile and his followers had proceeded, and endeavoured, but with little effect, to reclaim them from the practice of such detestable outrages. He afterwards repented of his concern in this cause, and refused to act against the government.

The Irish rebellion, which ought to have united the contending parties in England on

the contrary, furnished them with an occasion to widen the breach, by criminating each other. Sir Phelim O'Neile having published a manifesto in the name of the king, and affixed to it a seal which he had found in the castle of Charlemont, the enemies of Charles charged him with at least conniving at this detestable massacre, while the court party condemned the tardiness of the English and Scottish parliaments, and accused them of neglecting the safety of their protestant brethren in Ireland, in order more effectually to circumscribe the royal prerogative. Thus discontents continued to increase, and, in the beginning of the next year (1642), an imprudent interference of Charles hastened the approach of that tempest, which seemed to have been long collecting over this country.

Edward Montague, baron of Kimbolton, John Hampden, John Pym, Denzil Holles, sir Arthur Haselrig, and William Strode, had rendered themselves the objects of the royal indignation, by their strenuous attempts for the reduction of kingly power. The articles of charge adduced against lord Kimbolton and his five associates were of the following tenor. They were accused of having endeavoured to subvert the fundamental laws and government of the realm; to deprive the king of his authority; and to place in subjects an arbitrary power over the lives, liberties, and estates of the people; of having aspersed the character of his majesty, with a view of alienating the affections of the public from him; of having attempted to seduce the king's late army to disobedience and treason; of having invited the Scots to invade England; of having endeavoured to subvert the rights and the very existence of parliaments, and to compel the present assembly to join with them in their traitorous designs; of having raised and countenanced tumults for the promotion of their schemes, and levied war against the king.

Orders having been given for sealing up the cabinets of the accused individuals, the two houses concurred in an injunction for their being immediately restored to their former state; and the royal messengers, who had been employed on that occasion, were taken into custody. The peers appointed a committee to examine precedents concerning the regularity of the accusation; and the commons, instead of delivering up the five members to the serjeant at arms, whom the king ordered to demand them, sent a deputation to Charles, to inform him that those members were ready to answer any legal charge made against them.

The following day was distinguished by a remarkable scene. Attended by a guard of pensioners, and a train of courtiers, the king repaired to Westminster-hall, and presented himself before the door of the house of commons. Entering the house, with his nephew, the Palatine, he took possession of the speaker's chair, all the members standing up uncovered. With eager eyes he looked around for the five persons whom he had accused; but his search was vain: for, on previous intimation of his intention, from a private channel, they had retired, by order of the house, before his arrival. He then expressed his regret for the occasion which had brought him thither. He had expected, he said, a ready obedience to his command for the apprehension of the five members; but, as he had not been gratified in that particular, he had thought proper to demand them in person. No monarch who had ever reigned in England had a

greater desire of maintaining the privileges of parliament than he had; but, in cases of treason, no claim of privilege could justly be advanced. While these individuals were suffered to influence the house, he could not expect that it would ever be in the right way. As "the birds were flown," he required that they should be sent to him as soon as they re-appeared; not that he intended to proceed against them in any other mode than that which was fair and legal. With respect to the concessions which he had made for the benefit of his people, he begged the house to consider that it was his firm resolution to adhere to them. Having thus spoken, Charles left the house, which his extraordinary interference had filled with confusion. As he passed, many of the members reiterated in his ears, "Privilege! Privilege!" and an immediate adjournment ensued.

When the commons re-assembled on the succeeding day, they voted a declaration, complaining of the king's late behaviour, which they represented as a "high breach of the rights and privileges of parliament." Pretending that they were exposed to great danger from the vicinity of the court, they adjourned the house for some days, and appointed a committee to sit within the city, and deliberate on the means of vindicating their privileges and securing their persons.

Suspecting that the accused members were concealed in the city, Charles repaired to Guildhall; and, the common council being there assembled, he requested that the delinquents might not be protected, but might be delivered up to him for the purposes of judicial inquiry. Though it was well known where they were, no person wished to betray them; and the king returned to his palace without success. The populace insulted him, as he passed through the city; and one individual threw into his coach a paper, on which these words were written: "To your tents, O Israel!"

The ferment of the people now hourly increased. Successive rumours were propagated of the traitorous schemes of the catholics, of the king's approach to the city at the head of an army, of conspiracies against the lives of the chief friends of the people, and of various machinations of the most horrible nature. These reports kept up an incessant alarm, and inflamed the rabble to a height of fury. Tumultuary crowds resorted to the vicinity of Whitehall, and poured forth opprobrious expressions and licentious menaces against the king, the queen, and the court; and Charles, mortified and incensed, began to think of retiring from a scene of turbulence and peril. This hasty resolution he immediately reduced to practice, and thus put the adherents of the parliament into possession of the capital of England.

The spring and summer of this year were disturbed by continual dissension; and each party began to think seriously of deciding their cause by the sword. Several fruitless negotiations were set on foot, and soon after broken off; the parliament used every exertion to get the militia, the forts, and the navy into their power; and the king, in the month of August, erected his standard at Nottingham. We shall here subjoin an account of the general state of the nation, and the dispositions of the different parties at the commencement of the civil war, as described by a candid historian, to whom we confess ourselves greatly indebted.

In point of opulence and abundance, it is generally allowed that the community greatly flourished. Commerce, notwithstanding occasional restrictions, had considerably increased, since the accession of the Scottish line. Various improvements had been made in the mechanic arts; and those of a more liberal nature were cultivated with success. Population, though inferior to what it has since been in this country, was far from being at a low ebb; and this was a circumstance of some importance, when contending factions were levying armies. The imposts to which the people had been subjected, were by no means exorbitant; and, even in the long intermission of parliaments, when Charles had raised many in irregular modes, the public clamours had been less excited by the magnitude, than by the illegality, of the demands. With regard to military experience, the pacific reign of James, and the langour with which Charles had conducted his wars with Spain and France, had afforded few opportunities to the English of acquiring any extraordinary share of skill in that department. But in intrepidity they have never been deficient; and their courage, in the approaching contest, was sharpened by the infusion of religious as well as political animosity.

Among the advocates of the royal cause, we may reckon the greater part of the nobility and opulent gentry, who considered it as their interest to support the constitutional influence of monarchy, in opposition to republican encroachments and popular pretensions. The clergy of the established church were, in general, friends of Charles, of whose attachment to their order they retained a grateful sense. Many individuals of that denomination were also influenced, at this crisis, by the absurd opinion of the divine right of monarchs, and of the impiety of resisting them on any occasion. The inhabitants of the more distant counties, where faction had made less progress, professed, for the most part, a desire of supporting their sovereign; and persons of moderate sentiments, who regarded his concessions as sufficient securities for his future adherence to the constitution, wished success to his arms. Some of his most valuable friends were those who had eagerly joined in the general demand for a redress of grievances, but who, when he had removed the chief grounds of complaint, refused to promote the ulterior aims of an aspiring party.

The friends of the parliament were the major part of the community. The middling and lower classes were disposed to consider the national liberties as having a better chance of preservation under the care of the two houses, and particularly of the commons, than under the wings of a monarch, whose oppressions they had felt, and whose sincerity they were taught, by their representatives, to distrust. The traders and manufacturers, and most of the members of corporations, embraced the parliamentary cause, in return for the gratification of restored privilege, and in the hope of deriving future benefits from the exertions of a patriotic assembly. While the catholics, whose principles inclined them to the support of royalty, adhered to a prince who had treated them with lenity; the protestant dissenters, whose aversion to the church of England rendered them unwilling to support a conscientious patron of that establishment, adhered to an assembly from which they expected a greater indulgence to their religious tenets. Those members of the two houses who concurred in voting for the war, were not unanimous

in every other respect. Many of them wished only to enforce the king's submission to such further limitations of his prerogative, as might disable him from revoking his concessions ; others aimed at the total ruin of monarchy ; and some sought only an opportunity of aggrandizing themselves amidst the confusions of their country. Some were well affected to episcopacy ; others wished for its subversion, and for the establishment of the presbyterian system.

The military operations of this year were attended with no considerable advantage to either party. The battle of Edgehill is principally remarkable, as being the first occasion on which much blood had been shed, and was so undecided that each side claimed the victory. The reduction of Reading, and the victory at Brentford, may be considered as advantages on the side of Charles ; but though they alarmed the parliament with fears for the safety of the capital, they were not immediately attended with any important consequences.

In the succeeding year (1643) the royal party were on the whole successful. They reduced Cornwall, took Bristol, and defeated the parliamentarians at Roundway-down, but lost Reading, which was taken by the earl of Essex, and were obliged to raise the siege of Gloucester, which was defended by colonel Massey. Among the distinguished characters who fell victims to civil discord, were sir Bevil Grenville and viscount Falkland, on the side of the king, and on that of the parliament, lord Broke and the celebrated John Hampden.

In the first year of the war, the parliament had made overtures to the Scots for their assistance ; and to allure them to acquiescence, had given hopes of sacrificing the episcopal establishment in England at the shrine of presbyterianism. The North Britons, animated with this prospect of the extension of their favourite system, grateful for the favours which they had received from the southern parliament, and apprehensive that the king, in the event of his triumphing over his present foes, would take measures for the recovery of those prerogatives which had been wrested from him in Scotland, were, for the most part, inclined to afford the requested aid. After a fruitless offer of mediation from those Scots who had been appointed conservators of the peace lately concluded between the British kingdoms, whose interposition Charles knew would be directed to the advantage of his adversaries, the northern malcontents began to disclose their intention of taking an active part in the convulsions with which England was now agitated. To sanction their schemes, they wished for the speedy meeting of a parliament in their kingdom ; but as the next assembly of that kind had been fixed, by a late statute, for the middle of the following year, unless the king should think proper to convoke it sooner, Charles rejected a request which they made to him for that purpose, as he was unwilling to increase their power of injuring him. Disappointed in this particular, they proposed that the estates of the realm should be called to a convention ; and this motion was adopted in a meeting of the privy counsellors and the conservators of the peace. Charles at first resolved to prohibit this convention ; but, on further consideration, he consented to the measure, on condition that the assembly should not pass any votes that might tend to the recal of the Scottish forces from Ire-

land, or to the enlistment of a new army. But this resolution was as little regarded as the declarations which he issued with a view of vindicating his character and actions in the eyes of the Scots, and of diverting them from all thoughts of assisting his English enemies. When the convention sat, commissioners arrived at Edinburgh from the parliament of England to adjust the terms of the proposed confederacy against the king. The chief manager in this business was sir Henry Vane, junior, a man of extraordinary abilities. A committee, selected from the convention, as well as from the general assembly of the kirk, had several conferences with the English deputies; and it was resolved by both parties, that a covenant should be framed for the union of all the friends of true religion and liberty in the kingdoms of England, Scotland, and Ireland. Such an instrument was immediately prepared; and, when it had received the assent of the convention and the general assembly, orders were issued by the former, in the king's name, directing all the Scots, between the ages of 16 and 60, to provide themselves with arms. The covenant being sent to England, the two houses, after some debate, consented to give it their sanction; and, when they had subscribed it, they commanded the whole nation to swear to the observance of it. It was embraced by all the malcontents in Britain; and many of the secret friends of the king and the church also agreed to it, that they might not subject themselves, by a refusal, to suspicion and to persecution. The same engagement was imposed in Ireland, notwithstanding all the endeavours of the marquis of Ormond and other royalists for preventing the reception of it.

In the treaty which was now concluded between the English parliament and the Scottish convention, it was stipulated that 21,000 armed Scots should march into England, for the defence of the true religion and liberty, against the "papists and prelatical faction; that, towards the maintenance of this army, the sum of 30,000*l.* should be paid monthly by the former assembly; that, if this sum should not be paid at the time specified, an interest of eight per cent. should be allowed for the delay; that, if further satisfaction should be deemed necessary for the services of the Scots, it should be granted at the end of the war; that 100,000*l.* should be paid in advance, for the equipment of their army; and that no truce or peace should be concluded with the enemy without the joint assent of both kingdoms.

While this storm menaced him from the north, Charles prepared to meet it by seeking additional succour. It occurred to his reflection, that a truce with the rebels of Ireland would furnish him with an opportunity of procuring from that kingdom a supply of military strength, which he might employ with success to his British dominions. He was encouraged to this measure by the intelligence which he received from the marquis of Ormond, commander of his forces in Ireland, importing, that the necessities of the army were so great, as to render a suspension of hostilities highly expedient. Though the protestant troops had obtained several victories over the rebels, the latter were far from being subdued, and the promise of all their estates, by an act of the English parliament, to those who should contribute, in a pecuniary way, to the suppression of the revolt, inflamed them to a pertinacious and desperate resistance. The distractions of the country, the ravages committed by the insurgents, and the very slow transportation

of supplies from England, had produced the miseries of famine and nakedness, and consequently great discontent among the soldiers; and it was the opinion of the lords, justices, and privy council, as well as of the principal officers of the army, that a cessation of hostility was requisite for preventing the utter desolation of Ireland. Ormond being authorised by Charles to conclude an armistice with the rebels, the council of Kilkenny, to whose direction they had committed their affairs, appointed deputies to treat with him; and it was agreed that there should be an entire cessation of war for one year, and that they should pay 30,800*l.* for the king's use.

As soon as the stipulated number of troops had been levied in Scotland, they marched into England, under the command of Alexander Lesley, earl of Leven, the old general of the covenanters. The marquis of Newcastle retreated to York, and the Scots, having advanced thus far, and, being joined by Fairfax, invested that northern capital. The combined armies, in the month of July, defeated prince Rupert at Marston-More, and speedily reduced not only the city of York, but Newcastle, and great part of the northern counties. In the west, the king's affairs were prosperous, but not enough so to counterbalance the losses he sustained in the north.

A joint committee of England and Scotland, had, during the course of this year, adjusted propositions for peace, which, being presented to the king, he appointed 17 commissioners to treat with 12 deputies selected from the two houses, and 11 Scottish delegates.

The king had for some time foreborne to exasperate the two houses, by denying that they constituted a legal assembly; but, in the preceding summer, he had prohibited all his subjects, by proclamation, from considering as a regular part of the legislature, the few members who remained at Westminster; who, by terror and violence, had compelled their sovereign and the greater part of both houses to retire from the parliamentary scene; who oppressed the nation by grievous imposts, for the maintenance of an unnatural rebellion; who violated the laws of the realm, and invaded the liberties of the people.

By a subsequent proclamation, he summoned, to a convention at Oxford, all the members who had been expelled for their loyalty, or who had been driven from Westminster by the fear of violence, or who, continuing their seats, were over-awed by the factious leaders, so as not to possess that freedom of deliberation, which was essential to a parliament. He had before excepted a certain number from the pardon which he offered to the rest of the members; but he now promised that favour to every individual, of either house, who should speedily return to that allegiance which the law enjoined.

When the lords and commons of the royal party assembled at Oxford, to the number of above 50 of the former, and above 100 of the latter, Charles expressed his regret at the continuance of the national distractions; reprobated the desperate malignity of those, who, instead of aiming at the restoration of peace, had persuaded the Scots to invade the realm, and co-operate with them for the subversion of the constitution; and solicited the speedy advice and assistance of loyal subjects at this alarming crisis. The assembly adopted some resolutions, condemning the proceeding of the Scottish covenan-

ters as treasonable and perfidious, and representing it as the duty of every British subject, not only by the tie of allegiance, but also by the act of pacification between England and Scotland, to resist and repress the attempts of those traitors. The peers addressed an epistle to the Scottish council and the conservators of the peace, urging them to prevent the infraction of the treaty, and oppose the unjust hostilities meditated by their countrymen. This letter produced an answer, justifying the designs of the armed Scots, as necessary for the rescue of the king out of the hands of those malignant counsellors who had seduced him into measures ruinous to the prosperity of his people. A reply, equally unfavourable, was given to a pacific letter sent by the lords and commons of Oxford to the earl of Essex; and one which Charles wrote to those of Westminster, proposing the immediate appointment of commissioners to negotiate an accommodation, had not that conciliatory effect which was desired by every true patriot.

After these overtures had been rejected, the royal convention passed several votes, accused the members at Westminster of having committed high treason in three particulars, viz. in levying war against the king, counterfeiting his great seal, and promoting the Scottish invasion. In other votes, they were stigmatised as violaters of the trust reposed in them by their country, and determined enemies to peace.

The negotiators met at Uxbridge; and they were employed near a month in the discussion of the different points connected with the great object of an accommodation. The chief of the articles drawn up by the committee were the following: that all declarations against the legality of the proceedings of the two houses of Westminster, and of the late convention at Edinburgh, should be revoked; that the king should subscribe and swear to the solemn league and covenant; that an act should pass for the abolition of episcopacy; that the laws should be strictly enforced against papists; that the cessation concluded with the rebels of Ireland should be annulled; that the princes Rupert and Maurice, and 56 other adherents of the king, should be punished as traitors; that all catholics who were actively concerned on the royal side, either in England or in Scotland, and all persons who had promoted the Irish rebellion, should also expect no pardon; that all members of either house of parliament, who had adhered to the enemies of that assembly, should be excluded from the court, and (as well as the ecclesiastics, and all professors of the law, of the royal party) should be incapacitated from holding any office, without the consent of both houses, and obliged to give up a third part of their estates; that those royalists who had submitted to the parliament, except the most indigent, should forfeit a tenth part of their property; that the militia, the forts, and the navy, both in England and Scotland, should be subject to the direction of commissioners, named by the respective parliaments of those realms, and that it should be deemed high treason for any person to levy forces without their consent; that the commissioners, thus appointed for the two kingdoms, should also have the management of the war in Ireland; that the governors of the royal children, and all officers of state, should be persons of parliamentary appointment; and that the king should not make war or peace, without the consent of the British parliaments.

The business of religion was the first subject of deliberation; but the commissioners

could not agree on this head. From conscientious as well as political motives, Charles was strongly attached to episcopal government; and he saw no reason to consent to the annihilation of a system, which, for so many ages, had formed a part of the national constitution. Though such a measure was obstinately demanded by his opponents, he would only consent to a limitation of the authority of bishops, and to the redress of ecclesiastical abuses.

The next head was that of the militia, which had already occasioned such violent disputes. The king authorised his delegates to consent to the surrender of the military as well as naval power, for three or even seven years, into the hands of a certain number of commissioners, half of whom should be named by himself, and half by the two houses; but this concession did not give the desired satisfaction. With regard to the affairs of Ireland, no agreement could take place, the king refusing to contribute to the ruin of his authority in that kingdom, by resigning to his enemies, either the exclusive management of the war with the catholics, or (which they also demanded) the nomination of the governor and all the great officers of the Hibernian establishment. These were the three heads on which the negotiators principally debated; but, if they had agreed in these, the parliamentarians had no instructions to recede from the other extravagant demands contained in the propositions; many of which were such as no prince of honour or spirit could grant. Thus, by the pertinacity of the democratic party, the negotiations were rendered wholly fruitless, and the decision of the contest was reserved for the power of the sword.

While the king's adversaries were preparing for the treaty of Uxbridge, they had wreaked their vengeance on one of his former favourites. Archbishop Laud, after an imprisonment of above three years, had been brought to his trial in the preceding spring, being charged with the commission of high treason against the king and kingdom, in having endeavoured to subvert the fundamental laws of the realm, and the privileges of parliament, to establish a system of tyranny both in church and state, and to introduce popish superstition and idolatry. Finding (as in the trial of the earl of Strafford) that the evidence against the primate was insufficient, in point of law, to induce the peers to pronounce sentence against him in their judicial capacity, the commons had recourse to a parliamentary ordinance for his attainder, which passed their house with only one dissenting voice. Offended with the tardiness of the lords, who suffered the ordinance to linger in their house, the demagogues menaced them with a renewal of those tumults which had proved so efficacious in promoting the destruction of Strafford. In a very thin house, the peers at length complied with the wishes of the commons; and, the royal pardon being in vain pleaded by the archbishop, he was beheaded on Tower-hill, in the beginning of this year.

We have already intimated, that some of the leading members of the popular party were inclined to an accommodation with Charles, on such terms as might sufficiently secure the liberties of the people, without reducing the king to a state of abject dependence. Of these friends of peace, in the upper house, the chief were the earls of Essex and Manchester; and, in the lower, Denzil Holles, sir Philip Stapylton, sir John Clotworthy, and sir John Maynard. But the views of these members were inconsistent with

the interested purposes of another party, who aimed at the subversion of the constitution, and at the establishment of such a system of government, as might tend to their own aggrandisement. The leaders of this faction had hitherto concurred with the former; but they now disclosed their intentions of overleaping the boundaries which the other partizans of opposition had prescribed to themselves, and of promoting the depression of every true friend to the constitution, and the utter ruin of the king and his principal adherents. These ambitious chiefs, who preferred their private interest to the public welfare, were, Oliver St. John, sir Henry Vane, junior, Oliver Cromwell, sir Arthur Haselrig, sir Henry Mildmay, Nathaniel Fiennes, Henry Martin, and others. Of this party, Cromwell, by insinuation, artifice, and hypocrisy, soon became the head. As to religion, these men neither wished for the preservation of episcopacy, nor for the introduction of the presbyterian system; but were inclined to the doctrines of the independents, who, not considering the institutions of presbytery as a sufficient departure from the hierarchical principles, derived their denomination from their rejection of all ecclesiastical government, except that which each congregation might exercise within itself.

Cromwell and his associates, sensible of the unwillingness of Essex and Manchester, and other chief officers in the service of the two houses, to enter into those schemes which tended to the ruin of the monarchy, procured the dismission of the two earls and their friends, by means of an ordinance for incapacitating every member, of either house, during the war, from the possession of any military or civil post. The force of this self-denying ordinance, as it was called, was diverted from Cromwell, and he became the chief governor of the army, by his influence over sir Thomas Fairfax, who was now invested with the supreme command.

The new general was a man of courage and martial skill; but, being weak and credulous, he was easily duped by Cromwell, and became a mere tool in the hands of that artful leader, whose ambitious aims were greatly promoted by the new military arrangements. Sir Thomas was empowered by his commission (in which it is observable, the clause for the security of the king's person was not mentioned) to select such officers and common soldiers as he thought proper, out of the armies of the earls of Essex and Manchester, and of sir William Waller. By the interested diligence of Cromwell and his creatures, the new-modelled army, formed by selections from old regiments, and by levies of new troops, leaned, for the most part, to the maxims of the independent party. A more rigid discipline was introduced than had before prevailed; and the natural courage of the men received so strong a stimulus from religious zeal, that they despised the dangers of the field, and, considering themselves as engaged in a pious service, displayed an extraordinary ardour of exertion. Oliver, whose active disposition had prompted him, at the commencement of the civil war, to raise a troop of horse, had infused into his men, by his exhor[illegible] and example, a fanatical spirit, had taught them, that, in opposing the king, the[illegible] the battles of the Almighty; and had assured them, that the joys of [illegible] be the reward of their zealous efforts in such a cause. When he had [illegible] his troop to a regiment, he

did not neglect the opportunity of extending the same spirit; and the example of his soldiers now proved highly useful in promoting an enthusiastic fervour throughout the new army. The followers of the king, less precise and more licentious in their behaviour, indulged their mirth at the expense of the round-heads, and ridiculed the extravagance of the preaching warrior and the military devotee.

The effects of the valour of the new-modelled army were felt in the contest which ruined the interest of Charles, and took place on the 14th of June, 1645, near Naseby, in Northamptonshire.

In this important battle, the following were the arrangements of the two armies. The princes Rupert and Maurice appeared at the head of the right wing of their uncle's forces, consisting of cavalry; of which also the left wing was solely composed, which was conducted by sir Marmaduke Langdale, who had lately supported the royal cause in the north with spirit and activity. Lord Astley directed the operations of the main body, formed of infantry; and the king took his station at the head of the reserve, which consisted of his peculiar guards of horse and foot, exclusive of other regiments. The parliamentarian forces were likewise arranged in four divisions. Fairfax and major-general Skippon led the main body; lieutenant-general Cromwell commanded the right wing; Ireton, Oliver's son-in-law, conducted the left; and the colonels Rainsborough, Hammond, and Pride, headed the reserve.

The engagement was commenced by prince Rupert, who, before the preparations of the whole army for battle were completed, precipitately attacked Ireton's wing, and threw it into disorder, the commander himself being wounded and made prisoner, though he recovered his liberty on the turn of the battle. The prince, pushing his advantage, chased his antagonists from the field, and indulged himself in all the eagerness of pursuit. Between the main bodies, the contest was extremely vigorous, each in its turn repelling the other. In the mean while, the wings of Cromwell and Langdale engaged with great spirit; and some of the divisions under the command of the former began to give way; but he soon rallied with them, and fiercely continued the combat, till he had compelled his opponents to seek refuge in flight. Detaching a part of his wing to pursue them, he led the rest against the royal infantry, who were by this time greatly disordered by the gallant exertions of Fairfax. Charles now prepared to lead his horse guards to an attack upon the victorious cavalry of Cromwell; but, in consequence of an erroneous delivery of orders, they began a hasty retreat, in a confusion from which it was impracticable to reclaim them, notwithstanding all the efforts of the king; who, regardless of personal danger, endeavoured, by his voice and example, to animate his discouraged troops. Some of them, indeed, returned, and charged the foe, but with so little energy, that the attack proved wholly fruitless. At this crisis, Rupert and his brother re-appeared in the field; and Charles strenuously laboured, though without effect, to prevail on their men to concur in a fresh assault. Fairfax, having now defeated the king's infantry, was on the point of making a furious charge on the horse; but they anticipated his intentions by a disorderly flight, and were pursued to a considerable distance. About 500 royalists lost their lives in this action; and

among the slain were many distinguished officers. On the side of the victors, according to some accounts, above 1000 persons were killed or wounded; and others representing the slain only amounting to that number; but these statements appear to be exaggerated, while other calculations, which diminish the loss of that party to 100, seem to be equally erroneous in the opposite extreme. The king's chief loss was in prisoners; for above 300 of his officers and 4000 of his common soldiers were captured. He also lost 12 pieces of ordnance, about 8000 stand of arms, 200 carriages, and all his baggage, including his cabinet of papers, among which were found copies of his letters to the queen. With a view of bringing his sincerity in question, these epistles were published, by order of the two houses; and it must be acknowledged that they contain several passages, which were not altogether consistent with his public declarations, or with the high opinion entertained of his faith and honour by some of his advocates.

This decisive battle was followed by such a series of successful operations on the part of the parliamentary army, that it was not till winter the king seemed even to have leisure to reflect on the decay of his fortunes. A series of defeats and losses had so ruined his affairs, that he had scarcely the shadow of an army remaining, or a single county in which his influence was not almost annihilated by that of his opponents. Since the co-operation of the Scots with the southern malcontents, he had been gradually deprived of his authority in the north of England, over which, before the emigration of the marquis of Newcastle, he had a great sway; and those fanatical intruders had also made some progress in other parts of the realm. In the midland counties, few garrisons of the royalists now remained. In North Wales, the king's interest had begun to decline; in South Wales, it was subverted. In the eastern shires of England, from the Humber to the Channel, the two houses wholly predominated. In the west, and the south, Fairfax and Cromwell, with divided forces, promoted, with rapid success, the parliamentarian cause. Indeed, Charles, from the successive loss of his towns and fortresses, and the ruin of his armies, had little prospect of long preserving even one station in which he might repose with freedom and security.

The gloomy prospects were all realised in the ensuing campaign, when he was not only deprived of most of his remaining posts, but had the mortification to find that even Oxford, the place of his residence, was threatened with a siege. His firm adherent, the marquis of Montrose, was rendered formidable in Scotland, but he was soon after obliged to command him to dismiss his forces, and deliver up those fortresses which were in his possession.

Nothing could be more affecting than the situation in which the king now was. He now resolved to grant the parliament their own terms, and sent them repeated messages to this purpose; but they never deigned to make him the least reply. At last, after reproaching him with the blood spilt during the war, they told him that they were preparing some bills, to which if he would consent, they would then be able to judge of his pacific inclinations. Fairfax, in the mean time, was advancing with a victorious army, in order to lay siege to Oxford; and Charles, rather than submit to be taken captive, and led in triumph by his insolent subjects, resolved to give himself up to the Scots,

former tranquil condition. At this time he was treated with some flattering marks of distinction; he was permitted to converse with his old servants; his chaplains were permitted to attend him, and celebrate divine service their own way. But the most exquisite pleasure he enjoyed was in the company of his children, with whom he had several interviews. The meeting on these occasions was so pathetic, that Cromwell himself, who was once present, could not help being moved, and was heard to declare that he never beheld such an affecting scene before. But these instances of respect were of no long continuance. As soon as the army had gained a complete victory over the house of commons, the king was treated not only with the greatest disrespect, but even kept in continual alarms for his own personal safety. The consequence of this was, that Charles at last resolved to withdraw himself from the kingdom. Accordingly, on the 11th of November, 1647, attended only by sir John Berkeley, Ashburnham, and Leg, he privately left Hampton court; and his escape was not discovered till near an hour after; when those who entered his chamber, found on the table some under directed to the parliament, to the general, and to the officer who had atten. All night he travelled through the forest, and arrived next day at Tichfield, use. seat of the earl of Southampton, where resided the countess dowager, a woman of er. honour, to whom the king knew he might safely entrust his person. Before he arrived at this place, he had gone to the sea-coast; and expressed great anxiety that a ship, which he seemed to look for, had not arrived. He could not hope to remain long concealed at Tichfield: the question was, what measure should next be embraced. In the neighbourhood lay the Isle of Wight, of which Hammond was governor. This man was entirely dependent on Cromwell, which was a very unfavourable circumstance: yet, because the governor was nephew to Dr. Hammond, the king's favourite chaplain, and had acquired a good reputation in the army, it was thought proper to have recourse to him in the present exigence, when no other rational expedient could be thought of. Ashburnham and Berkeley were dispatched to the island. They had orders not to inform Hammond of the place where the king lay concealed, till they had first obtained a promise of him not to deliver up his majesty, even though the parliament and army army require him; but restore him to his liberty, if he could not protect him. The prom would have been but a slender security: yet, even without exacting it, Ashburnham imprudently, if not treacherously, brought Hammond to Tichfield, and the king was obliged to put himself into his hands, and to attend him to Caribroke castle, in the Isle of Wight, where, though he was received with great demonstrations of respect and kindness, he was in reality a prisoner.

While the king continued in this forlorn situation, Cromwell found himself upon the point of losing all the fruits of his former schemes, by having his own principles turned against himself. Among the independents, who in general were for no ecclesiastical subordination, a set of men grew up, call[illegible] conducted all, who disallowed all subordination whatever, and declared that they would have no other chaplain, king, or general, but Jesus Christ.

Though this would have gone down very well with Cromwell, as long as it was only directed against his enemies, he did not so well relish it when applied to himself. Having

intimation that the levellers were to meet at a certain place he unexpectedly appeared before them, at the head of his red regiment, which had hitherto been deemed invincible. He demanded, in the name of God, what these meetings and murmurings meant; he expostulated with them upon the danger and consequence of their precipitant schemes, and desired them immediately to depart. Instead of obeying, however, they returned an insolent answer; wherefore, rushing on them in a fury, he laid two of them dead at his feet. His guards dispersing the rest, he caused several of them to be hanged upon the spot, and sent others to London; and thus dissipated a faction, no otherwise criminal than in having followed his own example.

Cromwell's authority was greatly increased by the last mentioned action; but it became irresistible in consequence of a new and unexpected addition to his successes. The Scots, perhaps, ashamed of the reproach of having sold their king, and stimulated [illegible] by the independents, who took all occasions to mortify them, raised an army [illegible], and the chief command was given to the earl of Hamilton: while Lang[illegible] professed himself at the head of the more bigoted party who had taken the covenant, marched at the head of his separate body, and both invaded the north of England.

Though these two armies amounted to above 20,000 men, yet Cromwell, at the head of 8000 of his hardy veterans, feared not to give them battle. He attacked them, one after another; routed and dispersed them; took Hamilton prisoner; and, following his blow, entered Scotland, the government of which he settled entirely to his satisfaction. An insurrection in Kent was quelled by Fairfax with the same ease; and nothing but success attended all this usurper's attempts.

During these contentions, the king, who was kept a prisoner at Carisbroke castle, continued to negotiate with the parliament for settling the unspeakable calamities of the kingdom. The parliament now saw no other method of destroying the military power, but to depress it by the kingly. Frequent proposals for an accommodation passed between the captive king and the commons; but the great obstacle which had hitherto stood in the way, still kept them from agreeing. This was the king's refusing to abolish episcopacy, though he consented to alter the liturgy. However, the treaty was still carried on with vigour, and the parliament for the first time seemed in earnest to conclude their negotiations. But all was now too late. The victorious army, with Cromwell at their head, advanced to Windsor, and, with furious remonstrances, began to demand vengeance on the king. The unhappy monarch had been lately sent under confinement to that place; and from thence he was now conveyed to Hurst castle, in Hampshire, opposite to the Isle of Wight. The parliament, in the mean time, began to issue ordinances for a more effectual opposition to the military encroachments, when they were astonished by a message from Cromwell, that he intended paying them a visit next day with his whole army; and in the mean time ordering them to raise him 40,000*l.* on the city of London.

The commons, though destitute of all hopes of prevailing, had still the courage to resist, and to attempt, in the face of the whole army to finish the treaty they had begun with the king. They had taken into consideration the whole of his concessions; and

composed of the principal officers of the army, most of them of very mean birth, together with some of the lower house, and a few citizens of London. Bradshaw, a lawyer, was chosen president; Coke was appointed solicitor for the people of England; Dorislaus, Steele, and Aske, were named assistants. The court sat in Westminster-hall. When the king was brought forward before the court, he was conducted by the macebearer to a chair placed within the bar. Though long detained a prisoner, and now produced as a criminal, he still maintained the dignity of a king. His charge was then read by the solicitor, accusing him of having been the cause of all the bloodshed which followed since the commencement of the war; after which Bradshaw directed his discourse to him and told him that the court expected his answer.

The king began his defence, with declining the authority of the court. He represented, that, having been engaged in treaty with his two houses of parliament, and having finished almost every article, he expected a different treatment from what he had now received. He perceived, he said, no appearance of an upper house; which was necessary to constitute a just tribunal. He alleged that he himself was the king and fountain of law, and consequently could not be tried by laws to which he had never given his assent; that having been entrusted with the liberties of the people, he would not now betray them, by recognizing a power founded in usurpation; that he was willing, before a proper tribunal, to enter into the particulars of his defence; but that, before them, he must decline any apology for his innocence, lest he should be considered as the betrayer of, and not the martyr for, the constitution. Bradshaw, in order to support the authority of the court, insisted, that they had received their authority from the people, the source of all right. He pressed the king not to decline the authority of the court that was delegated by the commons of England, and interrupted and over-ruled him in his attempt to reply. In this manner the king was three times produced before the court, and as often persisted in declining its jurisdiction. The fourth and last time he was brought before this self-created tribunal, as he was proceeding thither, he was insulted by the soldiers and the mob, who cried out, "Justice! justice! Execution! execution!" but he continued undaunted. His judges having now examined some witnesses, by whom it was proved that the king had appeared in arms against the forces commissioned by parliament; they pronounced sentence against him. He seemed very anxious at this time to be admitted to a conference with the two houses, and it was supposed that he intended to resign the crown to his son; but the court refused compliance, and considered his request as an artifice to delay justice.

The behaviour of Charles under all these instances of low-bred malice was great, firm, and equal. In going through the hall from this execrable tribunal, the soldiers and rabble were again instigated to cry out, Justice and execution! They reviled him with the most bitter reproaches. Among other insults, one miscreant presumed to spit in the face of his sovereign. He patiently bore their insolence: "Poor souls," cried he, "they would treat their generals in the same manner for six-pence." Those of the populace who still retained the feelings of humanity, expressed their sorrow in sighs and tears. A soldier, more compassionate than the rest, could not help imploring a blessing on his royal head. An officer overhearing him, struck the honest centinel to the

ground before the king; who could not help saying, that the punishment exceeded the offence.

At the return to Whitehall, Charles desired permission of the house to see his children, and to be attended in his private devotions by Dr. Juxon, late bishop of London. These requests were granted, and also three days to prepare for execution. Every night between his sentence and execution, the king slept sound as usual, though the noise of the workmen employed in framing the scaffold continually resounded in his ears. The fatal morning being at last arrived, he rose early; and calling one of his attendants, he bade him employ more than usual care in dressing him, and preparing him for so great a solemnity. The street before Whitehall was the place destined for his execution; for it was intended that this should increase the severity of his punishment. He was led through the banqueting house to the scaffold adjoining to that edifice, attended by his friend and servant, bishop Juxon. The scaffold, which was covered with black, was guarded by a regiment of soldiers, under the command of colonel Tomlinson; and on it were to be seen the block, the ax, and two executioners in masks. The people, in crowds, stood at a greater distance. The king surveyed all these solemn preparations with composure; and, as he could not expect to be heard by the people at a distance, he addressed himself to the few persons who stood round him. He there justified his own innocence in the late fatal wars; he observed, that he had not taken arms till after the parliament had shown him the example; and that he had no other object in his warlike preparations, than to preserve that authority entire, which had been transmitted to him by his ancestors. But, though innocent towards his people, he acknowledged the equity of his execution in the eyes of his Maker: he owned that he was justly punished, for having consented to the execution of an unjust sentence against the earl of Strafford. He forgave all his enemies; exhorted the people to return to their obedience, and acknowledge his son as his successor; and signified his attachment to the protestant religion, as professed by the church of England. So strong was the impression made by his dying words on those who could hear him, that colonel Tomlinson himself, to whose care he had been committed, acknowledged himself a convert. At one blow his head was severed from his body. The other executioner then, holding up the head, exclaimed, "This is the head of a traitor."

It is impossible to describe the grief, indignation, and astonishment, which took place not only among the spectators who were overwhelmed with a flood of sorrow, but throughout the whole nation, as soon as the report of this fatal execution was conveyed to them. Each blamed himself, either with active disloyalty to the king, or a passive compliance with his destroyers. The very pulpits that used to resound with insolence and sedition, were now bedewed with tears of unfeigned repentance; and all united in in their detestation of those dark hypocrites, who, to satisfy their own enmity, involved a whole nation in the guilt of treason.

Charles was executed on the 30th of January, 1649, in the 49th year of his age, and 24th of his reign. He was of a middling stature, robust, and well proportioned. His visage was pleasant, but melancholy; and it is probable that the continual troubles in which he was involved might have made that impression on his countenance.

It being remarked, that the king, the moment before he stretched out his neck to the executioner, had said to Juxon, with a very earnest accent, the single word, REMEMBER, great mysteries were supposed to be concealed under that word; and the generals vehemently insisted with the prelate that he should inform them of the king's meaning. Juxon told them, that the king, having frequently charged him to inculcate on his son forgiveness of his murderers, had taken this opportunity, in the last moment of his life, when his commands, he supposed, would be regarded as sacred and inviolable, to reiterate that desire; and that his mild spirit thus terminated its present course, by an act of benevolence to his greatest enemies.

CHAPTER XIII.

BRITISH EMPIRE——*From the death of Charles I. to the Revolution.*

THE dissolution of the monarchy in England soon followed the death of the monarch. When the peers met, on the day appointed in their adjournment, they entered upon business; and sent down some votes to the commons, of which the latter deigned not to take the least notice. In a few days after, the commons voted, that the house of lords was useless and dangerous; for which reason it was abolished. They voted it high treason to acknowledge Charles Stuart, son of the late king, as successor to the throne.

A great seal was made; on one side of which were engraven the arms of England and Ireland, with this inscription, "The great seal of England." On the reverse was represented the house of commons sitting, with this motto: "On the first year of freedom, by God's blessing restored, 1649." The forms of all public business were changed from being transacted in the king's name, to that of the keepers of the liberties of England. The court of king's bench was called the court of public bench. Nay, so cautious on this head, it is said, were some of the republicans, that, in reciting the Lord's Prayer, they would not say, "thy kingdom," but "thy commonwealth come." The king's statue in the Exchange was thrown down; and on the pedestal these words were inscribed, Exit tyrannus, regum ultimus: "The tyrant is gone, the last of the kings." The commons, it is said, intended to bind the princess Elizabeth apprentice to a button maker; the duke of Gloucester was to be taught some other mechanical employment: but the former soon died of grief, as is supposed, for her father's tragical end; the latter was sent beyond sea by Cromwell.

The commons next proceeded to punish those who had been most remarkable for their attachment to their late sovereign. The duke of Hamilton, lord Capel, and the earl of Holland, were condemned and executed; the earl of Norwich and sir John Owen were also condemned, and afterwards pardoned. These executions irritated the Scots: their loyalty began to return; and the insolence of the independents, with their victories, inflamed them still more. They determined, therefore, to acknowledge prince Charles for their king, but at the same time to abridge his power by every limitation which they had attempted to impose on his father.

Charles, after the death of his father, having passed some time at Paris, and finding no likelihood of assistance from that quarter, was glad to accept of any conditions. The Scots, however, while they were thus professing loyalty to their king, were nevertheless cruelly punishing his adherents. Among others, the brave marquis of Montrose was taken prisoner, as he endeavoured to raise the Highlanders in the royal cause; and being brought to Edinburgh, was hanged on a gibbet 30 feet high, then quartered, and his limbs stuck up in the principal towns of the kingdom. Yet, notwithstanding all

this severity, Charles ventured into Scotland, and had the mortification to enter the gate of Edinburgh where the limbs of that faithful adherent were still exposed.

The young king soon found that he had only exchanged his exile for imprisonment. He was surrounded and incessantly importuned by the clergymen, who, having brought royalty under their feet, were resolved to keep it still subservient. Charles pretended to give ear to their discourse; but, however, made an attempt to escape. He was overtaken and brought back; when he owned the greatness of his fault, and testified his repentance for what he had done.

Cromwell, in the mean time, who had been appointed by the parliament to command the army in Ireland, prosecuted the war in that kingdom with his usual success. He had to encounter the royalists, commanded by the duke of Ormond, and the native Irish, led on by O'Neile. These troops he quickly overcame; and most of the towns, intimidated by his cruelty, opened their gates at his approach. He was on the point of reducing the whole kingdom, when he was recalled by the parliament to defend his country against the Scots, who had raised a considerable army in support of the royal cause.

On the return of Cromwell to England, he was chosen commander in chief of the parliamentary forces, in the room of Fairfax, who declined opposing the presbyterians. The new general immediately set forward for Scotland, with an army of 16,000 men, where he was opposed by general Lesly, who formed an excellent plan for his own defence.

This prudent commander, knowing his men to be inferior in valour and discipline, however superior in numbers, to those of Cromwell, kept himself carefully in his intrenchments. At last Cromwell was drawn into a very disadvantageous post near Dunbar, where his antagonist waited deliberately to take advantage of him. From this imminent danger, however, he was delivered by the madness of the Scots clergy. They, it seems, had been wrestling in prayer with the Lord night and day, and at last fancied that they had obtained the superiority. Revelations were made them, that the heretical army, together with Agag their general, would be delivered into their hands. Upon the assurances of these visions, they obliged their general to descend into the plain, and give the English battle. When Cromwell saw this mad action, he assured his followers, that the lord had delivered them into his hands, and ordered his army to sing psalms, as if already certain of victory. The Scots, though double the number of the English, were soon put to flight, and pursued with great slaughter, while Cromwell did not lose in all above 40 men.

After this defeat, Charles put himself at the head of the remains of his army; and these he further strengthened by the royalists, who had been for some time excluded from his service by the covenanters. He was so closely pursued by Cromwell, however, that he soon found it impossible to maintain his army. Observing, therefore, that the way was open to England, he immediately directed his march towards that country, where he expected to be reinforced by all the royalists in that part of the kingdom. In this, however, he was deceived: the English, terrified at the name of his opponent, dreaded to join him. But this mortification was greatly increased, when, at

Worcester, he was informed, that Cromwell was marching with hasty strides from Scotland, with an army of 40,000 men. This news was scarcely arrived, when Cromwell himself was there. He fell upon the town on all sides: the whole Scots army was either killed or taken prisoners; and the king himself, having given many proofs of personal valour, was obliged to fly.

The young king now entered upon a scene of adventures the most romantic that can be imagined. After his hair was cut off, the better to disguise his person, he worked some days in the habit of a peasant, cutting faggots in a wood. He next made an attempt to retire into Wales, under the conduct of one Pendrel, a poor farmer, who was sincerely attached to his cause. In this attempt, however, he was disappointed; every pass being guarded to prevent their escape. Being obliged to return, he met one colonel Careless, who had escaped the carnage at Worcester. In his company, the king was obliged to climb a spreading oak; among the thick branches of which they spent the day together, while they heard the soldiers of the enemy in pursuit of them below. From thence he passed, with imminent danger, feeling all the varieties of famine, fatigue, and pain, till he arrived at the house of colonel Lane, a zealous royalist, in Staffordshire. There he deliberated about the means of escaping to France; and Bristol being supposed the properest port, it was resolved that he should ride before this gentleman's sister, on a visit to one Mrs. Norton, who lived in the neighbourhood of that city. During this journey, he every day met with persons whose faces he knew, and at one time passed through a whole regiment of the enemies' army.

When they arrived at Mrs. Norton's, the first person they saw was one of his own chaplains at the door, amusing himself with seeing people play at bowls. The king, after having taken proper care of his horse in the stable, was shown to an apartment which Mrs. Lane had provided for him, as it was said he had the ague. The butler, however, being sent to him with some refreshment, no sooner beheld his face, which was very pale with anxiety and fatigue, than he recollected his king and master; and falling on his knees, while the tears streamed down his cheeks, cried out, "I am rejoiced to see your majesty." The king was alarmed, but made the butler promise that he would keep the secret from every mortal, even from his master; and the honest servant punctually obeyed him.

No ship being found that would for a month set sail from Bristol, either for France or Spain, the king was obliged to go elsewhere for a passage. He therefore repaired to the house of colonel Wyndham, in Dorsetshire, where he was cordially received. His mother, a venerable matron, seemed to think the end of her life nobly rewarded, in having it in her power to give protection to her king. She expressed no dissatisfaction at having lost three sons and one grandchild in the defence of his cause, since she was honoured in being instrumental in his own preservation.

Pursuing from thence his journey to the sea-side, he once more had a very narrow escape at a little inn, where he set up for the night. The day had been appointed for a solemn fast; and a weaver, who had been a soldier in the parliamentary army, was preaching against the king in a little chapel fronting the house. Charles, to avoid suspicion, was himself among the audience. It happened that a smith, of the same

principles with the weaver, had been examining the horses belonging to the passengers, and came to assure the preacher, that he knew, by the fashion of the shoes, that one of the stranger's horses came from the north. The preacher immediately affirmed, that this horse could belong to no other than Charles Stuart, and instantly went with a constable to search the inn. But Charles had taken timely precautions, and left the inn before the constable's arrival.

At Shoreham, in Sussex, a vessel was at last found, in which he embarked. He was known to so many, that, if he had not set sail at that critical moment, it had been impossible for him to escape. After 41 days' concealment, he arrived safely at Feschamp in Normandy. No less than 40 men and women had, at different times, been privy to his escape.

Cromwell, in the mean time, returned in triumph; and his first care was to depress the Scots, on account of their having withstood the work of the gospel, as he called it. An act was passed for abolishing royalty in Scotland, and annexing that kingdom as a conquered province to the English commonwealth. It was empowered, however, to send some members to the English parliament; judges were appointed to distribute justice; and the people of that country, now freed from the tyranny of the ecclesiastics, were not much dissatisfied with the government.

All parts of the British dominions being now reduced to perfect subjection to the parliament, they next resolved to chastise the Dutch, who had given but very slight causes of complaint. It happened that one Dr. Dorislaus, who was of the number of the late king's judges, being sent by the parliament as their envoy into Holland, was assassinated by one of the royal party who had taken refuge there. Sometime after, also, Mr. St. John, appointed their ambassador to that court, was insulted by the friends of the prince of Orange. These were thought sufficient reasons for a declaration of war against the Hollanders by the commonwealth of England. The parliament's chief dependence lay in the activity and courage of Blake, their admiral; who, though he had not embarked in naval command till late in life, yet surpassed all that went before him in courage and dexterity.

On the other side, the Dutch opposed to him their famous admiral Van Tromp, to whom their country never since produced an equal. Many were the engagements between these celebrated admirals, and various was their success. Several dreadful encounters served rather to show the excellency of the admirals, than to determine their superiority. At last, the Dutch, who felt many great disadvantages by the loss of their trade, and by the total suspension of their fisheries, were willing to treat for a peace. The parliament, however, gave but a very unfavourable answer. They studied to keep their navy on foot as long as they could; rightly judging, that, while the force of the nation was exerted by sea, it would diminish the formidable power of Cromwell by land.

This great aspirer, however, quickly perceived their designs; and, therefore, secure in the attachment of the army, resolved to seize the sovereign power. He persuaded the officers to present a petition for payment of arrears, and redress of grievances. His orders were obeyed: a petition was drawn up and presented, in which the officers,

after demanding their arrears, desired the parliament to consider how many years they had sat, and what pretensions they had formerly made of their designs to new model the house, and establish freedom on its broadest basis. They alleged, that it was now full time to give place to others; and however meritorious their actions might have been, yet the rest of the nation had some right, in their turn, to manifest their patriotism in defence of their country. The house was highly offended; they appointed a committee to prepare an act, ordaining that all persons who presented such petitions for the future, should be deemed guilty of high treason. To this the officers made a very warm remonstrance, and the parliament as angry a reply. Cromwell, being informed of this altercation, started up with the utmost seeming fury, and turning to major Vernon, cried out, that he was compelled to do a thing that made the very hair of his head stand on end. Then hastening to the house with 300 soldiers, and with the marks of violent indignation on his countenance, he entered, took his place, and attended to the debates for some time.

When the question was ready to be put, he suddenly started up, and began to load the parliament with the vilest reproaches for their tyranny, ambition, oppression, and robbery of the public. Upon which, stamping with his foot, which was the signal for the soldiers to enter, the place was immediately filled with armed men. Then, addressing himself to the members, "For shame," said he, "get you gone: give place to honester men; to those who will more faithfully discharge their trust. You are no longer a parliament; I tell you, you are no longer a parliament; the Lord has done with you." Sir Harry Vane exclaiming against this conduct, "Sir Harry!" cried Cromwell with a loud voice, "O Sir Harry Vane! The Lord deliver me from Sir Harry Vane! Taking hold then of one of the members by his cloak, "Thou art a whoremaster," cries he; to another, "Thou art an adulterer;" to a third, "Thou art a drunkard;" to a fourth, "Thou art a glutton," &c. "It is you," continued he to the members, "that have forced me upon this. I have sought the Lord night and day, that he would rather slay me than put me upon this work." Then pointing to the mace, "Take away that bauble," cried he: after which, turning out all the members, and clearing the hall, he ordered the doors to be locked; and putting the keys in his pocket, returned to Whitehall.

Thus the whole civil and military power centered in Cromwell, who, by this bold transaction, became, in effect, king of Great Britain, with uncontroulable authority. Being willing, however, to amuse the people with the form of a commonwealth, he proposed to give his subjects a parliament; but such an one as should be altogether obedient to his commands. For this purpose it was decreed, that the sovereign power should be vested in 144 persons, under the denomination of a parliament; and he undertook to make the choice himself. The persons pitched upon were the lowest, meanest, and most ignorant among the citizens, and the very dregs of the fanatics. To go further than others in the absurdities of fanaticism was the chief qualification upon which each of these valued himself. Their very names, borrowed from scripture, and rendered ridiculous by their misapplication, served to show their excess of folly. One of them particularly, who was called Praise-God-Barebone, a canting leather-seller, gave his name

to this odd assembly and it was called Barebone's parliament. They were chiefly composed of Antinomians; a sect that, after receiving the spirit, supposed themselves incapable of error; and the fifth-monarchy men, who every hour expected Christ's second coming on earth. They began by choosing eight of their tribe to seek the Lord in prayer, while the rest calmly sat down to deliberate upon the suppression of the clergy, the universities, and courts of justice; and instead of all this, it was their intent to substitute the law of Moses.

It was impossible such a legislature as this could stand; even the vulgar began to exclaim against it, and Cromwell himself to be ashamed of their absurdities. He had carefully chosen many persons among them, who were entirely devoted to his interest, and these he now ordered to dismiss the assembly. These accordingly met by concert, earlier than the rest of their fraternity; and observing to each other that this parliament had sat long enough, they hastened to Cromwell, with Rouse, their speaker, at their head, and into his hands resigned the authority with which he had invested them. Cromwell accepted their resignation with pleasure; but being told that some of their number were refractory, he sent colonel White to clear the house of such as ventured to remain there. They had placed one Moyer in the chair, by the time that the colonel had arrived; and he being asked by the colonel what they did there, Moyer replied, very gravely, that they were seeking the Lord. "Then you may go elsewhere," cried White, "for, to my certain knowledge, the Lord hath not been here these many years."

The shadow of parliament being thus dissolved, the officers, by their own authority, declared Cromwell protector of the commonwealth of England. The mayor and aldermen were sent for to give solemnity to his appointment, and he was instituted into his new office at Whitehall, in the palace of the kings of England. He was to be addressed by the title of Highness; and his power was proclaimed in London, and other parts of the kingdom. It was now, indeed, in a great measure necessary that some person should take the supreme command; for affairs were brought into such a situation, by the furious animosities of the contending parties, that nothing but absolute power could prevent a renewal of former bloodshed and confusion. The government of the kingdom was adjusted in the following manner. A council was appointed, which was not to exceed 21, nor to be under 13 persons. These were to enjoy their offices for life, or during good behaviour; and, in case of a vacancy the remaining members named three, of whom the protector chose one. The protector was appointed the supreme magistrate of the commonwealth, with such power as the king was possessed of. The power of the sword was vested in him jointly with the parliament, when sitting, or with the council at other times. He was obliged to summon a parliament once every three years, and to allow them to sit five months without adjournment. A standing army was established, of 20,000 foot and 10,000 horse; and funds were assigned for their support. The protector enjoyed his office for life; and on his death, his place was to be supplied by the council.

Of all these clauses, the standing army was sufficient for Cromwell's purpose; for, while possessed of that instrument, he could mould the rest of the constitution to his pleasure at any time. He chose his council from among his officers, who had been the

companions of his dangers and victories, to each of whom he assigned a pension of 1000*l.* a-year. He took care to have his troops, upon whose fidelity he depended for support, paid a month in advance; the magazines were also well provided, and the public treasure managed with frugality and care; while his activity, vigilance, and resolution, were so well exerted, that he discovered every conspiracy against his person, and every plot for an insurrection, before they took effect.

Thus Cromwell continued to govern, though without assuming the title of king, in as absolute a manner as the most despotic prince in Europe. As he was feared at home, so he made himself respected abroad. The Dutch, having been humbled by repeated defeats, were obliged to sue for peace. Cromwell obliged them to pay deference to the British flag. He compelled them to abandon the interest of the king, to pay 85,000*l.* as an indemnification for former expences, and to restore to the English East India company a part of those dominions which they had been dispossessed of by the Dutch during the former reign.

The ministry of France thought proper to pay deference to the imperious character of the protector; and he having lent that court a body of 6000 men, to attack the Spanish dominions in the Netherlands, who obtained a signal victory, the French put Dunkirk into his hands, as a reward for his attachment. By means of the celebrated admiral Blake, he humbled Spain prodigiously, as also the Algerines and Tunesines. Penn and Venables, two other admirals, made an attempt on the island of Hispaniola; but failing of this, they steered to Jamaica, which was surrendered to them without a blow. Yet so little was thought of the importance of this conquest, that, on their return, the two admirals were committed to the Tower, on account of the failure of the principal object of their equipment.

It is not to be supposed that a numerous standing army could be maintained, and so many foreign wars carried on, without incurring extraordinary expences. The protector's revenues were so much exhausted, that he was obliged to have recourse to methods, which he probably would not have chosen, had he not been driven to them by necessity. One or two conspiracies entered into by the royalists, which were detected and punished, served him as a pretence to lay a heavy tax upon all that party, of the tenth penny on all their possessions. In order to raise this oppressive imposition, ten major generals were instituted, who divided the whole kingdom into so many military jurisdictions. These men had power to subject whom they pleased to this tax, and to imprison such as denied their jurisdiction. Under colour of these powers, they exercised the most arbitrary authority; the people had no protection against their exactions: the very mask of liberty was thrown off, and all property was at the disposal of a military tribunal. It was in vain that the nation cried out for a free parliament. Cromwell assembled one, in consequence of their clamours; but as speedily dissolved it, when he found it refractory to his commands. At last, as parliaments were always held in such estimation by the people, he resolved to give them one; but such as should be entirely of his own choosing, and chiefly composed of his creatures. Lest any of a different complexion should enter the house, guards were placed at the door, and none admitted but such as produced a warrant from his council.

The principal design of conveening this assembly was, that they should offer him the crown, with the title of king, and other ensigns of royalty. His creatures, therefore, took care to insinuate the confusion there was in legal proceedings without the name of a king; that no man was acquainted with the extent or limits of the present magistrate's authority, but those of a king had been well ascertained by the experience of ages. The motion was at last formally made in the house, easily carried through, and nothing was now wanting but Cromwell's own consent to have his name enrolled among the kings of England. This consent, however, he never had resolution enough to give. His doubts continued for some days, and the conference carried on with the members who made the offer, so far as it is on his part intelligible, seems to argue that he was desirous of being compelled to accept the offer; however, the conference ended in his total refusal.

With all these proffered honours, and with all his despotic power, the situation of Cromwell was far from being enviable. Perhaps no situation, however mean, or loaded with contempt, could be more truly distressful than his, at the time the nation was loading him with congratulations and addresses. He had at last rendered himself hateful to every party, and he owed his safety to their mutual hatred and diffidence of one another. His arts of dissimulation were exhausted; none could be deceived by them; even those of his own party and principles disdained the use to which he had converted his zeal and professions. Though the whole nation silently detested his administration, he had not been completely wretched, if he could have found domestic consolation. But even his own family had embraced republican principles with so much violence, that they could not, without indignation, behold him vested with uncontroulable power; and Mrs. Claypole, his favourite daughter, upbraided him on her death-bed, with all the crimes which led him to trample on the throne. To add to all this, not only were conspiracies formed against him, but he was at last taught, upon reasoning principles, that his death was not only desirable, but his assassination would be meritorious. A book was published by colonel Titus, a man who had formerly been attached to his cause, entitled, "Killing no murder." Of all the pamphlets that appeared at that time, or, perhaps, of those that have since appeared, this was the most eloquent and masterly. Cromwell read it and is said never to have smiled afterwards.

The usurper now found, that the grandeur to which he had sacrificed his former tranquillity was only an inlet to fresh inquietudes. He was haunted with perpetual fears of assassination. He wore armour under his clothes, and always kept pistols in his pockets. His aspect was clouded by a settled gloom, and he regarded every stranger with suspicion. He was always attended by a numerous guard, and travelled in a hurry. He never returned from any place by the road he went; and never slept above three nights together in the same chamber. At last he was delivered from this life of horror and anxiety by a tertian ague, of which he died, September 3d, 1658, after having usurped the government nine years.

Oliver Cromwell was succeeded in his office of protector by his son Richard, who immediately called a parliament. To this assembly the army presented a remonstrance,

desiring some person for their general in whom they could confide. The house voted such meetings and remonstrances unlawful; upon which the officers, surrounding Richard's house, forced him to dissolve the parliament; and soon after he signed an abdication of the government. His younger brother, Henry, who had been appointed to the command of Ireland, followed Richard's example; and resigned his commission without striking a blow.

The officers, thus left at liberty, resolved to restore the rump parliament, as it was called, consisting of that remnant of a parliament which had condemned Charles. They were no sooner reinstated in their authority, however, than they began to humble the army, by cashiering some of the officers, and appointing others on whom they could have more dependance. The officers immediately resolved to dissolve the assembly. Lambert, one of the general officers, drew up a chosen body of troops; and placing them in the streets which led to Westminster-hall, when the speaker, Lenthall, proceeded in his carriage to the house, he ordered the horses to be turned, and very civilly conducted him home. The other members were likewise intercepted; and the army returned to their quarters to observe a solemn fast, which generally either preceded or attended their outrages. A committee was then elected, of 23 persons; of whom seven were officers. These they pretended to invest with sovereign authority; and a military government was established, which gave the nation a prospect of endless servitude, and tyranny without redress.

Upon hearing that the officers had, by their own authority, dissolved the parliament, general Monk, who was then in Scotland, with 8000 veteran troops, protested against the measure, and resolved to defend the national privileges. As soon as he put his army in motion, he found himself eagerly sought after by all parties; but so cautious was he of declaring his mind, that, till the very last, it was impossible to know which side he designed to take. A remarkable instance of this cautious behaviour was, that, when his own brother came to him with a message from lord Granville, in the name of tha king, he refused all conversation with him, upon hearing that he had told his errand to Mr. Price, the general's own chaplain, and a man of known probity and honour.

Hearing that the officers were preparing an army to oppose him, Monk amused them with negotiations; and the people, finding themselves not entirely defenceless, began to declare for a free parliament. The rump, finding themselves invited also by the navy and part of the army, again ventured to resume their seats, and to thunder votes in their turn against the officers and that part of the army by which they had been ejected. Without taking any notice of Lambert, they sent orders to the troops to repair immediately to the garrisons appointed for them. The soldiers obeyed; and Lambert at last found himself deserted by his whole army. Monk, in the mean time, proceeded with his army to London. The gentry, on his march, flocked round him with addresses, expressing their desire of a new parliament; but that general, still continuing his inflexible taciturnity, at last came to St. Alban's, within a few miles of the capital, leaving all the world in doubt as to his motives and designs. Here he sent the parliament a message, desiring them to remove such forces as remained in London to country quar-

ters. Some of the regiments willingly obeyed this order; and such as did not, Monk turned out by force: after which he took up his quarters with his army in Westminster. The house voted him thanks for his services. he desired them to call a free parliament; and this soon inspired the citizens to refuse submission to the present government. They resolved to pay no taxes until the members formerly excluded by colonel Pride should be replaced. For this they were punished by Monk, at the desire of the parliament. He arrested 11 of the most obnoxious of the common-council; broke the gates and portcullises; and, having exposed it to the scorn and contempt of all who hated it, he returned in triumph to his quarters at Westminster. The next day, however, he made an apology for this conduct, and promised, for the future, to co-operate with the mayor and common-council in such schemes as they should approve.

The commons were now greatly alarmed. They tried every method to gain off the general from his new alliance. Some of them even promised to invest him with the dignity of supreme magistrate, and to support his usurpation. But Monk was too just, or too wise, to hearken to such wild proposals; he resolved to restore the secluded members, and, by their means, to bring about a new election.

The restoration of the expelled members was easily effected; and their number was so much superior to that of the rump, that the chiefs of this last party now thought proper to withdraw in their turn The restored members began with repealing all those orders by which they had been expelled. They renewed and enlarged the general's commission; fixed a proper stipend for the support of the fleet and army; and, having passed these votes, they dissolved themselves, and gave orders for the immediate assembling a new parliament.

Meanwhile, Monk new modelled his army, to the purposes he had in view. Some officers, by his direction, presented him with an address, in which they promised to obey implicitly, the orders of the ensuing parliament. He approved of this engagement, which he ordered to be signed by all the different regiments; and this furnished him with a pretence for dismissing all the officers by whom it was rejected.

In the midst of these transactions, Lambert, who had been confined in the Tower, escaped from his prison, and began to raise forces; and as his activity and principles were sufficiently known, Monk took the earliest precaution to oppose his measures. He dispatched against him colonel Ingoldsby, with his own regiment, before Lambert had time to assemble his dependents. That officer had taken possession of Daventry, with four troops of horse: but the greater part of them joined Ingoldsby; to whom he himself surrendered, not without exhibiting strong marks of pusillanimity.

All this time, Monk still persisted in his reserve; nor would he entrust his secret intentions with any person, except one Morrice, a gentleman of Devonshire. He was of a sedentary and studious disposition; and with him alone did the general deliberate on the great and dangerous enterprize of the Restoration. Sir John Granville, who had a commission from the king, applied for access to the general; but he was desired to communicate his business to Morrice. Granville refused, though twice urged, to de-

liver his message to any but the general himself: so that Monk, now finding he could depend on this minister's secrecy, opened to him his whole intentions; but, with his usual caution, refused to commit any thing to paper. In consequence of these, the king left the Spanish territories, where he very narrowly escaped being detained at Breda by the governor, under ptetence of treating him with proper respect and formality. From thence he retired to Holland, where he resolved to wait further advice.

The new parliament being assembled, sir Harbottle Grimstone was chosen speaker, a man known to be a royalist in his heart. The affections of all were turned towards the king; yet such were their fears, and such dangers attended a freedom of speech, that none dared, for some days, to make any mention of his name. At length, Monk gave directions to Annesly, president of the council, to inform them that one sir John Granville, a servant of the king, had been sent over by his majesty, and was now at the door with a letter to the house of commons. This message was received with the utmost joy. Granville was called in, the letter read, and the king's proposals immediately accepted. He offered a general amnesty to all persons whatsoever, and that without any exceptions but what should be made by parliament. He promised to indulge scrupulous consciences with liberty in matters of religion; to leave to the examination of parliament the claims of all such as possessed lands with contested titles; to confirm all these concessions by act of parliament; to satisfy the army under general Monk with respect to their arrears; and to give the same rank to his officers, when they should be enlisted in the king's army.

In consequence of this good agreement between king and parliament, Montague, the English admiral, waited on his majesty, to inform him that the fleet expected his orders at Scheveling. The duke of York immediately went on board, and took the command as lord high admiral. The king embarked, and landing at Dover, was received by the general, whom he tenderly embraced. He entered London in 1660, on the 29th of May, which was his birth-day; and was attended by an innumerable multitude of people, who testified their joy by the loudest acclamations.

The restoration of Charles II. was attended with an important revolution in the spirit of the nation. The ferocious love of liberty, which had been productive of so many changes, had now given way to the most abject and unconditional submission to the will of the prince. The strict devotion of the puritans, which had been abused by designing men to the worst purposes of imposture, was succeeded by a contempt for all the dictates of the Christian religion: while scenes of gallantry and festivity were constantly exhibited at court, and contributed to promote the dissolution of manners among the people.

In the midst of this riot and dissipation, the old and faithful followers of the royal family were left unrewarded. Numbers who had fought both for the king and his father, and who had lost their whole fortunes in his service, still continued to pine in want and oblivion; while, in the mean time, their persecutors, who had acquired fortunes during the civil war, were permitted to enjoy them without molestation. The wretched royalists petitioned and murmured in vain; the monarch fled from their expostulations to

scenes of mirth and festivity; and the act of indemnity was generally said to have been an act of forgiveness to the king's enemies, and of oblivion to his friends.

In 1661, the Scots and English parliaments seemed to vie with each other in their prostrations to the king. In England, monarchy and episcopacy were raised to the greatest splendour. The bishops were permitted to resume their seats in the house of peers; all military authority was acknowledged to be vested in the king. He was empowered to appoint commissioners for regulating corporations, and expelling such members as had intruded themselves by violence, or professed principles dangerous to the constitution

An act of uniformity was passed, by which it was required that every clergyman should be re-ordained, if he had not before received episcopal ordination; that he should declare his assent to every thing contained in the book of Common Prayer, and should take the oath of canonical obedience. In consequence of this law, above 2000 of the presbyterian clergy resigned their cures at once. In Scotland, the right of the king was asserted, in the fullest and most positive terms, to be hereditary, divine, and indefeasible. His power was extended to the lives and possessions of his subjects, and from his original grant was said to come all that they enjoyed. They voted him an additional revenue of 40,000*l.* and all their former violences were treated with the utmost detestation.

This intoxication of loyalty, however, began soon to wear off. The king's profusion and extravagance in his pleasures, together with his indolence in administration, furnished opportunities of making very disadvantageous comparisons between him and Oliver Cromwell. These animosities were heightened by the ejected clergy, especially when they saw Dunkirk, which had been acquired during the usurper's vigorous administration, sold to the French for 40,000*l.* and that merely to supply the king's extravagance. From this time (August 17th, 1662,) Charles found himself perpetually opposed, and his parliaments granted supplies much more reluctantly than before.

A few months before, the continual exigencies of the king had forced him to conclude a marriage with the Infanta of Portugal, for the sake of her portion, which was 500,000*l.* in money, together with the fortresses of Tangier, in Africa, and of Bombay, in the East Indies. The chancellorr Clarendon, the dukes of Ormond and Southampton, urged many reasons against this match, particularly the likelihood of her never having any children; but all their objections could not prevail, therefore Clarendon set himself to promote it as far as lay in his power. Still, however, the king's necessities were greater than his supplies. He therefore resolved to sacrifice his minister, the great Clarendon, to the resentment of his parliament, to whom he was become obnoxious, in order to procure some more supplies for himself. In 1663, an extraordinary supply was demanded: the king sent for his commons, on the 12th of June, to Whitehall. He complained of their inattention; and, by acquainting them of a conspiracy to seize the castle of Dublin, he hoped to furnish a reason for demanding a present supply. Four subsidies were immediately granted, and the clergy in convocation followed the example of the commons. On this occasion, the earl of Bristol ventured to impeach the chan-

cellor in the house of peers: but as he did not support his charge, the affair was dropped for the present.

With a view, probably, of having the money to be employed for that purpose in his hands, Charles was induced to declare war against the Dutch, in 1664. In this war, the English, under the command of sir Robert Holmes, expelled the Dutch from Cape Corse castle, on the coast of Africa, and likewise seized on their settlements of Cape Verd and the isle of Goree. Sailing from thence to America, the admiral possessed himself of Nova Belgia, since called New York; and which, till lately, continued subject to Britain. On the other hand, De Ruyter, the Dutch admiral, dispossessed the English of all their settlements in Guinea, except Cape Corse. He afterwards sailed to America, where he attacked Barbadoes and Long Island, but was repulsed. Soon after, the two most considerable fleets of each nation met; the one under the duke of York, to the number of 114 sail; the other commanded by Opdam, admiral of the Dutch navy, of nearly equal force. The engagement began at four in the morning, and both sides fought with equal intrepidity. The duke of York was in the hottest part of the engagement, and behaved with great spirit and composure, while many of his lords and attendants were killed beside him. In the heat of the action, the Dutch admiral's ship blew up; which so discouraged and disheartened them, that they fled towards their own coast, having 30 ships sunk and taken, while the victors lost only one. This success of the English so much excited the jealousy of the neighbouring states, that France and Denmark immediately resolved to protect the republic from such formidable enemies. De Ruyter, the great Dutch admiral, on his return from Guinea, was appointed, at the head of 76 sail, to join the duke of Beaufort, the French admiral, who, it was supposed, was then entering the British Channel from Toulon. The duke of Albemarle and prince Rupert now commanded the British fleet, which did not exceed 74 sail. Albemarle detached prince Rupert with 20 ships, to oppose the duke of Beaufort; against which piece of rashness sir George Ayscue protested in vain. The fleets thus engaged upon unequal terms, a most memorable battle ensued. The first day, the Dutch admiral, Evertzen, was killed by a cannon-ball, one of their ships was blown up, and three of the English ships taken; the combatants were parted by darkness. The second day, they renewed the battle with incredible fury. Sixteen fresh ships joined the Dutch; and the English were so shattered, that their fighting ships were reduced to 28. Upon retreating towards their own coast, the Dutch followed them; where another dreadful conflict was beginning, but parted by the darkness of the night, as before. The morning of the third day, the English continued their retreat, and the Dutch their pursuit. Albemarle came to the desperate resolution of blowing up his own ship, rather than submit to the enemy, when he found himself happily reinforced by prince Rupert, with 16 ships of the line. By this time it was night; and the next day the fleets came again to close combat, which was continued with great violence, till they were parted by a mist. Sir George Ayscue having the misfortune to strike on the Galoper sands, was taken, with a ship of 100 guns.

Both sides claimed the victory; but the Dutch certainly had the advantage in this

engagement. A second, however, equally bloody, happened soon after, with larger fleets on both sides, commanded by the same admirals. In this the Dutch were vanquished; but they were soon in a condition to face their enemies, by the junction of Beaufort, the French admiral.

The Dutch fleet appeared in the Thames, conducted by their great admiral. The English were thrown into the utmost consternation. A chain had been drawn across the river Medway, and some fortifications had been added to the forts along the bank; but all these were unequal to the present force: Sheerness was soon taken; the Dutch passed forward and broke the chain, though fortified by some ships sunk by Albemarle's orders. Destroying the shipping in their passage, they still advanced, with six men of war and five fire-ships, as far as Upnore castle, where they burned three men of war. The whole city of London was in consternation; it was expected that the Dutch might sail up next tide to London bridge, and destroy not only the shipping, but even the buildings of the metropolis. The Dutch, however, were unable to prosecute that project, from the failure of the French, who had promised them assistance. Spreading, therefore, an alarm along the coast, and having insulted Harwich, they returned to their own coasts.

During these transactions abroad, happened a great plague at London, which destroyed 100,000 of the inhabitants. This calamity was soon followed by another, still more dreadful, if possible. A fire broke out in a baker's house, in Pudding-lane, near the bridge, and spread with such rapidity that no efforts could extinguish it, till it laid in ashes the most considerable part of the city. This calamity, though it reduced thousands to beggary, proved, in the end, both beneficial and ornamental to the city. It rose from its ruins in greater beauty than ever; the streets being widened, and the houses, built of brick instead of wood, became thus more wholesome and secure. In so great a calamity, it is remarkable that not a single life was lost.

These complicated misfortunes did not fail to excite many murmurs among the people. The blame of the fire was laid on the papists; the Dutch war was exclaimed against, as unsuccessful and unnecessary, as being an attempt to humble that nation, who were equal enemies to popery with themselves. Charles himself also began to be sensible that all the ends for which he had undertaken the Dutch war were likely to be entirely frustrated. Instead of being able to lay up money for himself, the supplies of parliament had hitherto been so scanty, that he found himself considerably in debt. A treaty, therefore, was set a-foot, which was concluded at Breda, on the 21st of July, 1667. By this treaty, the only advantage gained by Britain was, the cessation of the colony of New York. It was therefore judged disgraceful, and the blame of it thrown upon the unhappy earl of Clarendon. Along with this, he was charged with the sale of Dunkirk; the bad payment of the seamen: the disgrace by the Dutch fleet; and his own ambition. His daughter, while yet in Paris, had commenced an amour with the duke of York; and, under a solemn promise of marriage, had admitted him to her bed. Her lover, however, either of his own accord, or through the persuasions of his brother Charles, afterwards married her; and this too was imputed as a crime to Clarendon. On these accusations, the king, who, on account of his rigid virtue, had

never much loved this nobleman, ordered the seals to be taken from him, and given to sir Orlando Bridgeman. Clarendon was again impeached; and though the charges were manifestly frivolous, yet so strong was the popular torrent against him, that he thought proper to withdraw into France.

The king now began to act in a very arbitrary manner. He had long wished to extend his prerogative, and to be able to furnish himself with whatever sums he might want for his pleasures, and therefore was most likely to be pleased with those ministers who could flatter both his wishes at once. These he found in Clifford, Ashley, Buckingham, Arlington, and Lauderdale, a junto distinguished by the name of the cabal: a word formed by the initials of their names. The first effects of their advice was a secret alliance with France, and a rupture with Holland.

Soon after this, the duke of York declared himself a papist, and liberty of conscience was proclaimed to all sectaries, whether dissenters or papists; a proclamation was issued, containing very rigorous clauses in favour of pressing; another full of menaces against those who should speak undutifully of his majesty's measures; and even against those who heard such discourses, unless they informed in due time against the offenders. All these things gave very great and just offence to the people; but they were especially alarmed at the alliance with France, and justly afraid of the treachery of that nation.

On the 28th of May, 1672, the English fleet, under the duke of York, was surprised by the Dutch in Southwold bay. About eight in the morning began a most furious engagement. The gallant Sandwich, who commanded the English van, drove his ship into the midst of the enemy, beat off the admiral that ventured to attack him, sunk another ship that attempted to board him, and three fire-ships that offered to grapple with him. Though his vessel was torn with shot, and out of 1000 men there only remained 400, he still continued to fight. At last, a fire-ship, more fortunate than the rest, having laid hold of his vessel, her destruction became inevitable, and the earl himself was drowned, in attempting to swim to some other ship. Night parted the combatants; the Dutch retired, and were not followed by the English. The loss sustained by the two maritime powers was nearly equal; but the French suffered very little, not having entered into the heat of the engagement. It was even supposed that they had orders for this conduct, and to spare their own ships, while the Dutch and English should weaken each other by their mutual animosities.

The murmurs of the people, on account of the Dutch war, became at length so loud as to reach the king, who found himself obliged to assemble the parliament, and take their sense upon his conduct.

The parliament met on the 4th of February 1673. They began with repressing some of the king's extraordinary stretches of prerogative, and taking means for uniformity in religious matters. A law was passed, entitled the test act, imposing an oath on all who should enjoy any public benefice. Besides the taking the oaths of allegiance and the king's supremacy, they were obliged to receive the sacrament once a-year in the established church, and to abjure all belief in the doctrine of transubstantiation. As the dissenters also had seconded the efforts of the commons against the king's de-

claration of indulgence to Roman catholics, a bill was passed for their ease and relief, which, however, was lost by delays in the house of peers. The Dutch, in the mean time, continued to defend themselves with such valour, that the commons began to despair of success. They therefore resolved that the standing army was a grievance; they next declared, that they would grant no more supplies to carry on the Dutch war, unless it appeared that the enemy were so obstinate as to refuse all reasonable conditions.

To cut short these disagreeable altercations, the king resolved to prorogue the parliament; and with that intention went unexpectedly to the house of peers, from whence he sent the usher of the black-rod to summon the house of commons to attend. It happened that the usher and the speaker met nearly at the door of the house; but the speaker being within, some of the members suddenly shut the door, and cried, "To the chair." Upon which the following motions were instantly made, in a tumultuous manner: That the alliance with France was a grievance; that the evil counsellors of the king were a grievance; that the earl of Lauderdale was a grievance: and then the house rose, in great confusion. The king soon saw that he could expect no supply from the commons for carrying on the war which was so disagreeable to them; he resolved, therefore to make a separate peace with the Dutch, on terms which they had proposed by the Spanish ambassador. For form's sake, he asked the advice of parliament; who concurring heartily in his intentions, a peace was concluded accordingly.

The prepossession which Charles had all along shewn for France, and his manifest inclination upon all occasions to attach himself to that kingdom, had given great offence to his people. Along with this, other circumstances conspired to raise a general discontent. The toleration of the catholics, so much wished for by the king; the bigotry of the duke of York, the heir apparent to the crown, and his zeal for the propagation of the catholic religion, excited a consternation, not altogether without foundation, as if the protestant religion was in danger. This fear and discontent was carefully kept up and fomented by wicked and designing men; who, to promote their own interests, would not scruple to advance the grossest falsehoods. In 1678, an account of a plot, formed by the papists for destroying the king and the protestant religion, was given in by one Kirby, a chemist, Dr. Tong, a weak credulous clergyman, and Titus Oates, who had likewise been a clergyman, but one of the most abandoned miscreants that can be imagined.

The circumstances attending this pretended discovery were so perfectly incredible; that it appears amazing how any person of common sense could give ear to them. Nevertheless, so much were the minds of the nation in general inflamed against the catholics at this time, that it not only produced the destruction of individuals of the Romish persuasion, but an universal massacre of that unhappy sect was apprehended. The parliament, who ought to have repressed these delusions, and brought back the people to calm deliberate inquiry, were found more credulous than even the vulgar themselves. The cry of plot was echoed from one house to the other; the country party could not let slip so favourable an opportunity of managing the passions of the people, the courtiers were afraid of being thought disloyal, if they should doubt the guilt of these

who were accused of designs against the king's person. Danby, the prime minister, himself, entered into it very furiously, and persisted in his inquiries, notwithstanding all the king's advices to the contrary. Charles himself was the only one who treated it with contempt. Nothing, however, could stop the popular fury; and, for a time, the king was obliged to give way to it.

During the time of this general uproar and persecution, the lord treasurer, Danby, was impeached in the house of commons, by Seymour, the speaker. The principal charge against him was, his having written a letter to Montague, the king's ambassador at Paris, directing him to sell the king's good offices at the treaty of Nimeguen, to the king of France, for a certain sum of money; contrary to the general interests of the confederates, and even of those of his own kingdoms. Though the charge was just, yet Danby had the happiness to find the king resolved to defend him. Charles assured the parliament, that, as he had acted in every thing by his orders, he held him entirely blameless; and though he would deprive him of all his employments, yet he would positively insist on his personal safety. The lord were obliged to submit; however, they went on to impeach him, and Danby was sent to the Tower; but no worse consequeness followed.

These furious proceedings had been carried on by a house of commons that had continued undissolved for above 17 years. They were now dissolved, and another parliament was called: which, however, proved as unmanageable as the preceding. The members resolved to check the growth of popery, by striking at the root of the evil: and therefore brought in a bill for the total exclusion of the duke of York from the crown of England and Ireland, which passed the lower house by a majority of 79. They next voted the king's standing army and guards to be illegal. They proceeded to establish limits to the king's power of imprisoning delinquents at will. It was now also that the celebrated statute called the Habeas Corpus act was passed, which confirms the subject in an absolute security from oppressive power.

During these troubles, the duke of York had retired to Brussels; but an indisposition of the king led him back to England, to assert his right to the throne. After prevailing upon his brother to disgrace his natural son, the duke of Monmouth, who was now become very popular, he himself retired to Scotland, under pretence of quieting the apprehensions of the English nation, but, in reality, to strengthen his interest in that part of the empire. This secession served still more to inflame the country party, who were strongly attached to the duke of Monmouth, and were resolved to support him against the duke of York. Mobs, petitions, pope-burnings, were artifices employed to keep up the terrors of popery, and alarm the court. The parliament had shown favour to the various tribes of informers, and that served to increase the number of those miscreants; but plots themselves also became more numerous. Plot was set up against plot, and the people were kept suspended in the most dreadful apprehension.

But it was not by plots alone that the adverse parties endeavoured to supplant each other. Tumultuous petitions on one hand, and flattering addresses on the other, were sent up from all quarters. Wherefore the country party prevailed, petitions were sent to

the king filled with grievances and apprehensions. Wherever the church or court party prevailed, addresses were framed, containing expressions of the highest regard to his majesty, and the deepest abhorrence of those who endeavoured to disturb the public tranquillity.

Thus the nation came to be distinguished into petitioners and abhorrers. Whig and Tory, also, were now first used as terms of reproach. The whigs were so denominated from a cant name given to the sour presbyterian conventiclers (whig being milk turned sour). The tories were denominated from the Irish banditti so called, whose usual manner of bidding people deliver, was by the Irish word Toree, that is "Give me."

All this time the king had tyrannized over the Scots in a very cruel manner. Being apprized of the tendency of presbyterian principles to a republican form of government, Charles, like his predecessors, had endeavoured to introduce episcopacy there, but in a much more violent manner than had been formerly attempted. The rights of patrons had for some years been abolished; and the power of electing ministers had been vested in the kirk-session and lay elders: but it was now enacted, that all incumbents who had been admitted upon this title should receive a presentation, and be instituted anew by the bishop, under the penalty of deprivation.

In consequence of this, 350 parishes were at once declared vacant. New ministers were sought for all over the kingdom, and none were so vicious or ignorant as to be rejected. The people, as might have been expected, were displeased to the highest degree; they resolved, however, to give no sign of mutiny or sedition, notwithstanding their discontent. This submission made their case still worse; it being foolishly imagined, that, as they did not complain for a little ill usage, they would submit altogether, if they were worse treated.

Affairs remained in a peaceable situation, till, in 1661, a very severe act was passed in England against conventicles; and this severity was imitated by the Scots parliament, who passed an act of the same kind. Military force was next let loose. Wherever the people had generally forsaken their churches, the guards were quatered throughout the country. They were commanded by sir James Turner, a man of a very furious temper and dissolute life. He went about and received lists from the clergy of those who absented themselves from the churches, or were supposed to frequent conventicles. Without any proof, or legal conviction, he demanded a fine from them, and quartered soldiers on the supposed criminals, till he received payment. An insurrection being dreaded during the Dutch war, new forces were levied, and entrusted to the command of Dalziel and Drummond, two men of very cruel dispositions, and the Scots parliament gave full scope to all their enormities.

Representations were now made to the king, who promised some redress. But his lenity came too late. The people, in 1668, rose in arms. They surprised Turner in Dumfries, and resolved to have him put to death; but finding his orders to be more violent than his execution of them, they spared his life. At Lanark they renewed the covenant, and published their manifesto; where they professed their submission to the king, and only desired the re-establishment of presbytery, and of their former ministers.

Their force never exceeded 2000 men; and though the country in general bore them great favour, men's spirits were so subdued, that the insurgents could expect no farther increase of numbers. Dalziel took the field to oppose them. The numbers of the covenanters were now reduced to 800, and these no way capable of contending with regular forces. Having advanced near Edinburgh, they attempted to find their way back into the west by Pentland hills. Here they were attacked by the king's troops, and received the first charges very resolutely: but that was all the action. Immediately they fell into confusion and fled. About 40 were killed on the spot, and 130 taken prisoners

So long ago as the year 1661, the presbyterians had deputed one Sharpe to lay their grievances before the king. Instead of this, their deputy abandoned the cause altogether, became their violent enemy, and, as a reward of his treachery, was made archbishop of St. Andrew's. After the battle of Pentland hills, this man was the foremost to take vengeance on the unhappy insurgents, whose oppressed state and inoffensive behaviour had made them objects of universal compassion. Ten were hanged on one gibbet in Edinburgh, 35 before their own doors in different places. They might all have saved their lives, if they would have renounced the covenant; but this they absolutely refused.

The executions were going on, when the king wrote a letter to the privy council, in which he ordered that such of the prisoners as should simply promise to obey the laws for the future, should be set at liberty; and that the incorrigible should be sent to the plantations. This letter was brought to the council by Burnet, but was not immediately delivered by Sharpe. What his motives were for this delay, we pretend not to say; but certain it is, that no action of his life will bear a worse construction than this. It had been customary to put these poor creatures to very severe tortures, in order to make them confess that to be falsehood which they believed to be true. By Sharpe's delay, one Hugh Maccail had been tortured, who would otherwise have escaped; and so violent were the torments he endured, that he expired under them. He seemed to die in an ecstacy of joy. His last words were uttered with an accent which struck all the by-standers with astonishment. "Farewel," said he, "sun, moon, and stars; farewel world and time; farewel weak frail body; welcome eternity; welcome angels and saints; welcome Saviour of the world; and welcome God, the judge of all."

In 1670, an act against conventicles was passed, seemingly with a design of mitigating the former persecuting laws; though even this was severe enough. By this act, the hearer in a conventicle (that is, in a dissenting assembly where more than five beside the family were present) was fined five shillings for the first offence, and ten shillings for the second; the preacher 20*l.* for the first offence, and 40*l.* for the second. The person in whose house tho coventicle met was fined a like sum with the preacher. One remarkable clause was, that if any dispute should arise with regard to the interpretation of any part of the act, the judges should always explain the doubt in the sense least favourable to conventicles, it being the intention of parliament entirely to suppress them.

As the violent methods used by the king were found ineffectual to obtain his purpose in Scotland, in 1678, a scheme of comprehension was tried, by which it was proposed to diminish greatly the authority of the bishops, to abolish their negative voice in the ecclesiastical courts, and to leave them little more than the right of precedency among the presbyters; but this too was rejected by the people, who well knew its tendency.

The next scheme was an indulgence. By this, the most popular of the expelled preachers, without requiring any terms of submission to the established religion, were settled in vacant churches; and small salaries, of about 20*l.* a-year were offered to the rest, till they should be otherwise established. This bounty was rejected, as the wages of criminal silence, and the replaced ministers soon repented of their compliance; conventicles multiplied, and the covenanters daily met in arms at their place of worship, though they usually dispersed themselves after divine service.

These mild methods being rejected, a renewal of the persecution commenced under the administration of the duke of Lauderdale, and in which archbishop Sharpe had a principal hand. It was an old law, and but seldom put in execution, that a man who was accused of any crime, and did not appear to take his trial, might be intercommuned; that is, he might be publicly outlawed; and whoever afterwards, either on account of business, relation, or charity, had the least intercourse with him, was subjected to the penalties which the law could inflict on the criminal himself. A great many writs of intercommuning were now issued against the covenanters; by which abused method of proceeding, crimes and punishments were multiplied to an extreme degree.

Application was made to Charles for some redress of these grievances; but he was too much taken up with his pleasures to take any effectual means of putting a stop to them; nay, even while he retracted them, he was persuaded to avow and praise them in a letter to the privy council. The consequence of all this was, that the covenanters were at last so much enraged against Sharpe, whom they considered as an apostate, and experienced to be an unrelenting persecutor, that, on the 3rd of May, 1679, he was way-laid and murdered, with all the circumstances of unrelenting cruelty. The murder of Sharpe produced a persecution still more violent, which at last brought on another insurrection.

The covenanters finding themselves obliged to meet in large bodies, and bring arms along with them for their own security, set forth a declaration against prelacy, which they published at Rutherglen, a small borough near Glasgow; and in the market-place there, they burned several acts of parliament, which had established that mode of ecclesiastical government, and had prohibited all conventicles. For this purpose, they chose the 29th of May, the anniversary of the Restoration; and previously extinguished the bonfires that had been kindled on that occasion. Count Graham, afterwards viscount Dundee, an active and enterprising officer, attacked a great conventicle upon London hill, but was repulsed, with the loss of 30 men. The covenanters then finding themselves unwarily engaged in rebellion, were obliged to persevere; and therefore pushed on to Glasgow, which, though repulsed at first, they afterwards made themselves masters of. Here they dispossessed the established clergy, and issued proclamations, in which

they declared that they fought against the king's supremacy, against popery and prelacy, and against a popish successor.

Charles, being now alarmed, dispatched against the covenanters a small body of English cavalry, under the duke of Monmouth. He joined the Scots guards, and some regiments of militia, levied from the well affected counties; and with great celerity marched in quest of the insurgents. They had taken post at Bothwell-bridge, between Hamilton and Glasgow; where there was no access but by the bridge, and where a small body was able to defend it against the king's army. The whole army of the covenanters never exceeded 8000 men, and they had in reality no other generals than their clergymen. Monmouth attacked the bridge, and the covenanters maintained their post as long as their ammunition lasted. When they sent for more, they received orders to quit their post and retire; and this imprudent measure occasioned an immediate defeat. Monmouth passed the bridge without opposition, and drew up his forces opposite the enemy. His cannon alone put them to the rout. About 700 were killed in the pursuit; for, properly speaking, there was no action. Twelve hundred were taken prisoners, and treated with humanity by Monmouth. Such as promised to live peaceably under the present government were dismissed; and about 300 who refused this condition were shipped for Barbadoes, but unfortunately perished by the way. Two of their clergymen were hanged. Soon after, an act of indemnity was passed; but Lauderdale took care that it should afford little protection to the unhappy covenanters; for though orders were given to connive thenceforward at all conventicles, he found means, under a variety of pretences to elude the execution of them.

It is now certainly known, that king Charles II. had formed a scheme of overturning the established religion, and substituting popery in its place; as also of rendering himself absolute. In this, however, he met with violent opposition from his parliaments; and as this one of 1679 seemed even to surpass their predecessors in violence, the king was induced to dissolve them, and call another in 1680. By this step, however, he was no gainer. They voted the legality of petitioning the king; and fell with extreme violence on the abhorrers, who, in their addresses to the crown, had expressed their disapprobation of those petitions. Great numbers of these were seized by their order in all parts of England, and committed to close custody; the liberty of the subject, which had been so carefully guarded by their own recent law, was every day violated, by their arbitrary and capricious imprisonments. One Stowel, of Exeter, put a stop to their proceedings: he refused to obey the serjeant at arms, who was sent to apprehend him; he stood upon his defence, and said he knew no law by which the house of commons pretended to commit him. The house, finding it equally dangerous to proceed or recede, got off by an evasion. They voted that Stowel was indisposed; and a month's time was allowed him for his recovery. It is happy for the nation, that, should the commons at any time overleap the bounds of their authority, and capriciously order men to be put in prison, there is no power, in case of resistance, that can compel the prisoners to submit to their decrees.

The chief point, however, laboured by the present parliament, was to obtain the exclusion bill; which, though the former house had voted, was never yet passed into a

law. It passed by a great majority in the house of commons, but was thrown out by the house of lords. All the bishops, except three, voted against it; for they were of opinion that the church of England was in much greater danger from the prevalence of presbyterianism than popery. The commons were extremely mortified at the rejection of their favourite bill: in revenge, they passed several other disagreeable acts, among which one was, That, till the exclusion bill was passed, they could not, consistently with the trust reposed in them, grant the king any manner of supply; and that whoever should hereafter lend, by way of advance, any money upon the branches of the king's revenue, should be responsible to parliament for his conduct. Charles, therefore, finding that there were now no hopes of extorting either money or obedience from the commons, came to a resolution of once more dissolving the parliament. His usher of the black-rod accordingly came to dissolve them, while they were voting that the dissenters should be encouraged, and that the papists had burned the city of London.

It was for some time a doubt whether the king would call another parliament: his neccessities, however, surmounted all his fears of their violence; and, in 1681, he summoned his parliament to meet him at Oxford, that he might thus have an opportunity of punishing the city of London, by showing his suspicions of their loyalty. In this, as in all former parliaments, the country party predominated; and they trod exactly in the same paths with their predecessors. The same speaker was chosen, and the exclusion bill raged more fiercely than before. Ernely, one of the king's ministers, proposed that the duke should be banished 500 miles from England; and that, on the king's decease, the next heir should be constituted regent, with regal power. Yet even this expedient, which left the duke the bare title of king, could not obtain the attention of the house. Nothing but a total exclusion could satisfy them.

Each party had now for some time reviled and ridiculed each other in pamphlets and libels; and this practice at last was attended with an incident that deserves notice. One Fitzharris, an Irish papist, employed a Scotsman, named Everhard, to write a libel against the king and the duke of York. The Scot was actually a spy for the contrary party; and supposing this a trick to entrap him, he discovered the whole to sir William Waller, an eminent justice of the peace; and, to convince him of the truth of his information, posted the magistrate and two other persons privately, where they heard the whole conference between Fitsharris and himself. The libel composed between them was replete with the utmost rancour and scurrility. Waller carried the intelligence to the king, and obtained a warrant for committing Fitzharris, who happened at that very time to have a copy of the libel in his pocket. Seeing himself in the hands of a party from whom he expected no mercy, he resolved to side with them, and throw the odium of the libel upon the court, who, he said, were willing to draw up a libel, which should be imputed to the exclusioners, and thus render them hateful to the people. He enhanced his services to the country party by a new popish plot, more tremendous than any of the foregoing, and in which he brought in the duke of York as a principal accomplice. The king imprisoned Fitzharris; the commons avowed his cause. They voted that he should be impeached by themselves, to screen him from the ordinary

forms of justice: the lords rejected the impeachment; the commons asserted their right; a commotion was likely to ensue; and the king, to break off the contest, went to the house and dissolved the parliament, with a fixed resolution never to call another.

From this moment the king ruled with despotic power. His temper, which had always been easy and merciful, now became arbitrary and cruel; he entertained spies and informers round his throne, and imprisoned all such as he thought most daring in their designs. He resolved to humble the presbyterians: they were divested of their employments and their places; and their offices given to such as held with the court, and approved the doctrine of non-resistance. The clergy began to testify their zeal and their principles by their writings and sermons; but though among these the partizans of the king were the most numerous, those of the opposite faction were the most enterprising. The king openly espoused the cause of the former; and thus placing himself at the head of a faction, he deprived the city of London, which had long headed the popular party, of their charter. It was not till after an abject submission that he restored it to them, having previously subjected the election of their magistrates to his immediate authority.

Terrors also were not wanting to confirm this new species of monarchy. Fitzharris was brought to a trial before a jury, and condemned and executed. The whole gang of spies, witnesses, informers, suborners, which had long been encouraged and supported by the leading patriots, finding now that the king was entirely master, turned short upon their antient drivers, and offered their evidence against those who first put them in motion. The king's ministers gave them encouragement; and in a short time the same injustice and the same cruelties were practised against presbyterian schemes that had formerly been practised against catholic treasons. The king's chief resentment was levelled against the earl of Shaftesbury, and, indeed, not without reason, as he had a very active hand in the late disturbances. No sums were spared to seek for evidence, or even to suborn witnesses, against this intriguing and formidable man. A bill of indictment being presented to the grand jury, witnesses were examined, who swore to such incredible circumstances, as must have invalidated their testimony, even if they had not been branded as perjured villains. Among his papers, indeed, a draught of an association was found, which might have been construed into treason; but it was not in the earl's hand-writing, nor could it be proved that he had ever communicated this scheme to any body, or signified his approbation of any such project. The sheriffs had summoned a jury, whose principles coincided with those of the earl; and that, probably, more than any want of proof, procured his safety.

In 1683, the city of London was deprived of its charter; which was restored only upon terms of the utmost submission, and giving up the nomination of their own magistrates. This was so mortifying a circumstance, that all the other corporations in England soon began to fear the same treatment, and were successively induced to surrender their charters into the hands of the king. Considerable sums were exacted for restoring these charters, and all offices of power and profit were left at the disposal of the crown.

Resistance now, however justifiable, could not be safe; and all prudent men saw no other expedient, but submitting patiently to the present grievances.

There was a party, however, in England, that still cherished their former ideas of freedom, and resolved to restore liberty to their country, by dethroning the king, who acted in such a despotic manner. The principal conspirators were Monmouth, Shaftesbury, Russel, Essex, Howard, Algernon Sidney, and John Hampden, grandson to the great man of that name. Monmouth engaged the earl of Macclesfield, lord Brandon, sir William Courtney, sir Francis Knowles, and sir Francis Drake, who promised to raise the West. Shaftesbury, with one Ferguson, an independent clergyman, and a restless plotter, managed the city, upon which the confederates chiefly relied. These schemes had been laid in 1681: but the caution of lord Russel, who induced the duke of Monmouth to put off the enterprize, saved the kingdom from the horrors of a civil war; while Shaftesbury was so struck with a sense of his impending danger, that he left his house, and, lurking about the city, attempted, but in vain, to drive the Londoners to an open insurrection. At last, enraged at the numberless cautions and delays which clogged and defeated his projects, he threatened to begin with his own friends singly. However, after a long struggle between fear and rage, he abandoned all hopes of success, and fled to Amsterdam, where he soon after died.

The loss of Shaftesbury, though it retarded, did not suppress, the designs of the conspirators. The remaining six formed a council; they corresponded with Argyle, and the malcontents in Scotland; and resolved to prosecute the scheme of the insurrection, though they widely differed in principles from one another. Monmouth aspired to the crown; Russel and Hampden proposed to exclude the duke of York from the succession, and redress the grievances of the nation. Sidney was for restoring the republic, and Essex joined in the same wish. Lord Howard was an abandoned man, who, having no principles, sought to embroil the nation to gratify his private interest in the confusion.

Besides these, there was a set of subordinate conspirators, who frequently met together, and carried on projects quite unknown to Monmouth and his council. Among these was colonel Rumsey, an old republican officer; lieutenat colonel Walcot, of the same stamp; Goodenough, under sheriff of London, a zealous and noted party-man; Ferguson, an independent minister; and several attorneys, merchants, and tradesmen of London. But Rumsey and Ferguson were the only persons that had access to the great leaders of the conspiracy. These men undertook the desperate resolution of assassinating the king in his way to Newmarket; Rumbold, one of the party, possessed a farm upon that road, called the Rye-house, and from thence the conspiracy was called the Rye-house plot. They deliberated on a scheme of stopping the king's coach, by overturning a cart on the high-way at this place, and shooting him through the hedges. The house in which the king lived at Newmarket accidently took fire, and he was obliged to leave Newmarket eight days sooner than was expected; to which circumstance he owed his safety. Soon after this the conspiracy was discovered; Russel, Sidney, and Walcot were executed; Essex cut his own throat or was murdered

in the Tower. Hampden was fined 40,000*l.* and scarce one escaped who had been in any manner concerned, except the duke of Monmouth, who was the most culpable of all.

This was the last blood that was shed on account of plots or conspiracies, which continued during the greatest part of this reign. Severe punishments, however, were inflicted on many who treated the duke of York unworthily. The famous Titus Oates was fined 100,000*l.* for calling him a popish traitor; and he was imprisoned till he should pay it, which he was absolutely incapable of. A similar sentence was passed upon Dutton Colt. Sir Samuel Barnadiston was fined 10,000*l.* for having in some private letters reflected on the government. The government of Charles was now as absolute as that of any prince in Europe; but to please his subjects by an act of popularity, he judged it proper to marry the lady Anne, his niece, to prince George, brother to the king of Denmark. This was the last remarkable transaction of this extraordinary reign. On February 2nd, 1685, about eight in the morning, the king was seized with a fit of the apoplexy; being dressed, and just come out of his closet, where he had been for some time after he rose from bed. By being blooded, he was restored perfectly to his senses; and there were great hopes of his recovery the next day. On the fourth day the physicians despaired of his life, and therefore sent for the queen. He was in his perfect senses when she arrived. She threw herself on her knees, and asked his pardon for all her offences. He replied, that she had offended in nothing; but that he had been guilty of offences against her, and asked her pardon. He spoke with great affection to the duke of York, and gave him excellent counsel for his future conduct. He advised him to adhere to the laws with strictness, and invariably to support the church of England. The duke seemed anxious to convince him, before he died, how little he intended to follow his advice. Having removed the bishops, and several of the lords who attended the bed of the king, he sent for Huddleston, a Romish priest. In the presence of the duke, the earl of Bath, and Trevannion, a captain in the guards, Huddleston gave the extreme unction to the king, and administered to him the sacrament, according to the rites of the church of Rome. All this was done in the space of half an hour. The doors were then thrown open: six prelates, who had before attended the king, were sent for to give him the sacrament. Kenn, bishop of Bath and Wells, read the visitation of the sick; and after he said that he repented of his sins, the absolution. The king assisted with seeming devotion at the service; but his mouth being distorted with fits, and his throat contracted, he could not swallow the elements. He professed, however, his satisfaction in the church of England; and expired on the 6th day of February, between eleven and twelve o'clock, having reigned 25 years, and lived 55.

The first act of the reign of James II. was to assemble the privy council; where, after some praises bestowed on the memory of his predecessor, he made profession of his resolution to maintain the established government both in church and state; and as he had heretofore ventured his life in defence of the nation, he would still go as far as any man in maintaining all its just rights and privileges.

This discourse was received with great applause, not only by the council, but by the whole nation. Addresses came from all quarters, full of duty, nay of the most servile adulation. From this charge, however, we must except that of the quakers, which is remarkable for its good sense and simplicity. "We are come," said they, "to testify our sorrow for the death of our good friend Charles, and our joy for thy being made our governor. We are told that thou art not of the persuasion of the church of England no more than we; wherefore we hope that thou wilt grant us the same liberty which thou allowest thyself. Which doing, we wish thee all manner of happiness."

The king, however, soon showed, that he either was not sincere in his promises, or that he entertained so lofty an idea of his own regal power, that even his utmost sincerity could tend very little to the security of the liberties of the people. All the customs, and the greater part of the excise, which had been voted to the late king for his life only, were levied by James without a new act for that purpose. He went openly to mass, with all the ensigns of his dignity; and even sent one Caryl as his agent to Rome, to make submissions to the pope, and to pave the way for the re-admission of England into the bosom of the catholic church. From the suggestions of these men all his measures were undertaken. One day, when the Spanish ambassador ventured to advise his majesty against putting too much confidence in such kind of people, "Is it not the custom in Spain," said James, "for the king to consult with his confessor?" "Yes," answered the ambassador, "and that is the reason why our affairs succeed so very ill."

James's first parliament, which was composed mostly of zealous tories, was strongly inclined to comply with the measures of the crown. They voted unanimously, that they should settle on the present king, during life, all the revenue enjoyed by the late king till the time of his decease. For this favour, James assured them, that he would secure them in the full enjoyment of their laws; but, with regard to religion, no answer could be extorted, for that he was resolved to alter. In every thing, however, religion excepted, James merited every praise. He applied himself to business with unremitting attention. He managed his revenue with the strictest economy. He retrenched superfluous expences, and showed himself zealous for the glory of the nation. He endeavoured to expel from court the vice which had prevailed so much during the former reign, and to restore decency and morality. He presided daily at the council, at the board of admiralty and treasury. He even entered into the whole detail of the concerns of the great departments of the state. But his bigotry for the Romish religion sullied all his good qualities, and rendered him feared for his violence, where he was not despised for his weakness.

But whilst every thing was submitted in tranquillity to James at home, a storm was gathering abroad to disturb his repose. For a long time, the prince of Orange had entertained hopes of ascending the British throne, and had even used all his endeavours to exclude James from it. Monmouth, who, since his last conspiracy, had been pardoned, but ordered to depart the kingdom, had retired to Holland. He was received by the prince of Orange with the highest marks of distinction, and even became his

chief favourite, through whom all favours were to be obtained. When the news of Charles's death arrived, indeed, the prince made a show of altering his note, and dismissed Monmouth, though he still kept a close correspondence with him. The duke retired to Brussels, where, under the auspices of the prince of Orange, he resolved to invade England, with a design of seizing the crown for himself. He was seconded by the duke of Argyle, who formed the scheme of an insurrection in Scotland; and, while Monmouth attempted to make a rising in the west of England, it was resolved that Argyle should also try his endeavours in the north. The generosity of the prince of Orange, however, did not correspond with the warmth of his professions. The unfortunate duke derived from his own plate and jewels his whole supply for the war; and the enthusiasm of a rich widow supplied Argyle with 10,000*l.* wherewith he purchased three vessels, which he loaded with arms and ammunition.

Argyle was the first who landed in Scotland, where he published his manifestoes, put himself at the head of 2500 men, and strove to influence the people in his favour. But a formidable body of the king's forces coming against him, his army fell away; and he himself, after being wounded in attempting to escape, was taken prisoner by a peasant, who found him standing up to the neck in water. He was from thence carried to Edinburgh, where, after suffering many indignities, he was publicly executed.

By this time Monmouth had landed in Dorsetshire, with scarce 100 followers. His name, however, was so popular, and so great was the hatred of the people to James, on account of his religion, that, in four days, he had assembled a body of above 2000 men. They were indeed all of them the lowest of the people, and his declarations were suited entirely to their prejudices. He called the king the duke of York; and denominated him a traitor, a tyrant, a murderer, and a popish usurper. He imputed to him the fire of London, and even affirmed that he had poisoned the late king.

Monmouth continued to make a rapid progress, and in a short time found himself at the head of 5000 men; but was daily obliged to dismiss great numbers for want of arms. The king was not a little alarmed at his invasion. Six regiments of British troops were called over from Holland; and a body of regulars, to the number of 3000, were sent, under the command of the earl of Feversham and Churchill, to check the progress of the rebels. They took post at Sedgemore, a village in the neighbourhood of Bridgewater, and were joined by considerable numbers of the country militia. Here Monmouth resolved, by a desperate effort, to lose his life or gain the kingdom. He drove the royal infantry from their ground, and was on the point of gaining a complete victory, when the cowardice of Gray, who commanded the horse, brought all to ruin. This nobleman fled at the first onset; and the rebels, being charged in flank, gave way, after a three-hours' contest. Above 300 were killed in the engagement, and 1000 in the pursuit. Monmouth fled above 20 miles from the field of battle, till his horse sunk under him. He then alighted; and, exchanging clothes with a shepherd, fled on foot, attended by a German count, who had accompanied him from Holland. Being quite exhausted with hunger and fatigue, they both lay down in a field, and covered them-

selves with fern. The shepherd being found in Monmouth's clothes by the pursuers, increased the diligence of the search; and, by means of the blood-hounds, he was detected in his miserable situation, with raw pease in his pocket, on which he had lived for some days. He burst into tears when seized by his enemies; and petitioned, with the most abject submission, for his life. On his way to London, he wrote a submissive letter to the king, promising discoveries, should he be admitted into his presence. The curiosity of James being excited by the letter, he sent Sheldon, a gentleman of the bed-chamber, to meet Monmouth. In his conversation with Sheldon, he asked who was in chief confidence with the king; and being answered that it was Sunderland, Monmouth knocked his breast in surprise, and said, "Why then, as I hope for salvation, he promised to meet ME." He desired Sheldon to inform the king, that several of his accomplices in rebellion were in the confidence of his majesty; and he gave him a particular account of the part which the prince of Orange had acted in this whole affair.

Sheldon, on his return from the duke of Monmouth, began to give an account to the king of what he had learned from the unhappy prisoner. Sundelrand, pretending business, came into the room. Sheldon stopped, and signified his desire to speak in private with the king. James told him he might say any thing before that lord. Sheldon was in great perplexity; but, being urged, he told all that Monmouth had asserted. Sunderland appeared for some time confused: at length he said, with a laugh, "If that is all he can discover to save his life, he will derive little good from his information." Monmouth himself was soon after brought before the king. Sunderland, by an artifice, ensured the death of the unfortunate duke, to save himself and the other adherents of the prince of Orange. When he saw Monmouth's letter to James, and heard the discoveries made by Sheldon, he is said to have advised him, that, as he could assure him of the certainty of a pardon, he ought to deny what he had said in prejudice of his friends, who could serve him on some other more favourable occasion. The credulous duke, swayed by the advice of Sunderland, suppressed what he had said to Sheldon, when he was examined by the king. He mentioned nothing of the concern which the prince of Orange had taken in the invasion; though a point on which James was already sufficiently informed. D'Avaux, the French minister to the States, had given a circumstantial account of the whole conduct of the prince to Louis XIV. who had ordered it to be privately communicated to the king of England. The minister who had been sent from Holland to congratulate James on the suppression of Argyle's rebellion, was in a grievous agony when he heard that the king was resolved to see Monmouth. "Though he found that he said nothing of his master," said James, "he was never quiet till Monmouth was dead."

The unfortunate duke made various attempts to obtain mercy. He wrote to the queen dowager; he sent a letter to the reigning queen, as well as to the king himself. He begged his life, when admitted into his presence, with a meanness unsuitable to his pretensions and high rank. But all his intreaties and submissions were of no avail. James told him, that he was much affected with his misfortunes, but that his crime was

too dangerous in its example to be left unpunished. In his last moments he behaved with a magnanimity worthy of his former courage. When he came to the scaffold, he behaved with decency and even with dignity. He spoke little; he made no confession; nor did he accuse any of his friends. Circumstances are said to have attended his death that created a horror among the spectators. The executioner missed his blow, and struck him slightly on the shoulder. Monmouth raised his head from the block, and looked him full in the face, as if reproaching him for his mistake. He struck him twice again, but with feeble strokes; and then threw the axe from his hands. The Sheriff forced him to renew his attempt; and the head of the duke, who seemed already dead, was at last severed from his body.

Those concerned in the duke of Monmouth's conspiracy were punished with the utmost severity. Immediately after the battle of Sedgemore, Feversham hanged up above 20 prisoners; and was proceeding in his executions, when the bishop of Bath and Wells informed him, that these unhappy men were now by law intitled to a trial, and that their execution would be deemed a real murder. Nineteen were put to death in the same manner at Bridgewater, by colonel Kirke, a man of a savage and bloody disposition. This vile fellow, practised in the arts of slaughter at Tangier, where he served in garrison, took pleasure in committing instances of wanton barbarity. He ravaged the whole country, without making any distinction between friend and foe. His own regiment for their peculiar barbarity, went under the ironical title of Kirke's lambs. It doth not, however, appear, that these cruelties, were committed by the direction, or even with the approbation of James; any more than the legal slaughters that were committed by judge Jefferies, who was sent down to try the delinquents. The natural brutality of this man's temper was inflamed by continual intoxication. No fewer than 80 were executed by his orders at Dorchester; and, on the whole, at Exeter, Taunton, and Wells, 250 are computed to have fallen by the hand of justice, as it was called; nor were the women exempted from the general severity, but suffered for harbouring their nearest kindred Jefferies, on his return, was immediately created a peer, and soon after vested with the dignity of chancellor. In justice to the king, however, it must be owned, that, in his memoirs, he complains, with apparent indignation, of "the strange havock made by Jefferies and Kirke in the west;" and that he attributed the unpopularity, which afterwards deprived him of the crown, to the violence and barbarity of those pretended friends of his authority. He even ascribes their severities, in some degree, to a formed design of rendering his government odious to his subjects; and from hence, it is probable that no exact or impartial accounts of these cruelties had reached his ears, at least till long after they were committed.

James now began to throw off the mask, and to endeavour openly to establish popery and arbitrary power. He told the house of commons, that the militia were found by experience to be of no use; that it was necessary to augment the standing army; and that he had employed a great many catholic officers, in whose favour he had thought proper to dispense with the test required to be taken by all who were employed by the crown. He found them useful, he said, and he was determined to keep them employed.

These stretches of power naturally led the lords and commons into some degree of opposition; but they soon acquiesced in the kings measures, and then the parliament was dissolved for their tardy compliance. This was happy for the nation; for it was perhaps impossible to pick out another house of commons that could be more ready to acquiesce in the measures of the crown, but the dissolution of this parliament was generally looked upon as a sign that James never intended to call another.

The parliament being dismissed, James's next step was to secure a catholic interest in the privy council. Accordingly, four catholic lords were admitted, viz. Powis, Arundel, Belasis, and Dover. Sunderland, who saw that the only way to gain preferment was by popery, became a convert. Rochester, the treasurer, was turned out of his office, because he refused to conform. Even in Ireland, where the duke of Ormond had long supported the royal cause, this nobleman was displaced, as being a protestant; and the lord Tyrconnel, a furious Roman catholic, was placed in his stead. In his zeal for popery, it is said that James stooped so low as even to attempt the conversion of colonel Kirke; but the daring soldier told him, that he was pre-engaged; for he had promised the king of Morocco, when he was quartered at Tangiers, that, if ever he changed his religion, he would turn Mahometan.

At last, the clergy of the church of England began to take the alarm, and commenced an opposition to court measures. The pulpits now thundered out against popery; and it was urged, that it was more formidable from the support granted it by the king. It was in vain that James attempted to impose silence on these topics; instead of avoiding the controversy, the protestant preachers pursued it with greater warmth.

To effect his designs, the king determined to revive the high commission court, which had formerly given the nation so much disgust, and which had been abolished for ever by an act of parliament. An ecclesiastical commission was issued out anew, by which seven commissioners were invested with a full and unlimited authority over the whole church of England. The next step was to allow a liberty of conscience to all sectaries; and he was taught to believe, that the truth of the catholic religion would then, upon a fair trial, gain the victory. In such a case, the same power that granted liberty of conscience might restrain it, and the catholic religion alone be allowed to predominate. He therefore issued a declaration of general indulgence, and asserted that nonconformity to the established religion was no longer penal. In Scotland, he ordered his parliament to grant a toleration only to the catholics, without interceding in the least for the other dissenters, who were much more numerous. In Ireland, the protestants were totally expelled from all offices of trust and profit. and catholics put in their places. These measures sufficiently disgusted every part of the British empire; but, to complete the work, James publicly sent the earl of Castlemaine ambassador extraordinary to Rome, in order to express his obedience to the pope, and reconcile his kingdom to the catholic communion. This proceeding was too precipitate to be relished by the pope himself; and therefore the only return he made to this embassy was the sending a nuncio into England. The nuncio made a public and solemn entry into Windsor; which did not fail to add to the general discontent; and because the duke of Somerset

refused to attend the ceremony, he was dismissed from his employment, of one of the lords of his bed chamber.

Soon after this, the Jesuits were permitted to erect colleges in different parts of the kingdom, and to exercise the catholic worship in the most public manner. Father Francis, a Benedictine monk, was recommended by the king to the university of Cambridge for the degree of master of arts. The university rejected him, on account of his religion; and presented a petition to the king, beseeching him to recal his mandate. James disregarded their petition, and denied their deputies a hearing; the vice-chancellor himself was summoned to appear before the high commission court, and deprived of his office; yet the university persisted and father Francis was refused. The place of president of Magdalen college being vacant, the king sent a mandate in favour of one Farmer, a new convert, and a man of bad character in other respects. The fellows of the college made very submissive applications for recalling his mandate; but the election day coming on before they received an answer, they chose Dr. Hough, a man of learning, integrity, and resolution. The king was incensed at their presumption; an inferior ecclesiastical court was sent down, who, finding Farmer a man of scandalous character, issued a mandate for a new election. The man now recommended by the king was doctor Parker; a man of an abandoned character, but very willing to embrace the catholic religion. The fellows refused to comply with this injunction; which so irritated the king, that he came down to Oxford in person, and ordered the fellows to be brought before him. He reproached them with their insolence and disobedience; and commanded them to choose Parker without delay. Another refusal on their side served still more to exasperate him; and finding them resolute in the defence of their privileges, he ejected them all, except two, from their benefices, and Parker was put in possession of the place. Upon this, the college was filled with catholics; and Charnock, one of the two that remained, was made vice-president.

In 1688, a second declaration for liberty of conscience was published almost in the same terms with the former; but with this peculiar injunction, that all divines should read it after service in their churches. The clergy resolved to disobey this order. Loyde, bishop of St. Asaph, Kenn of Bath and Wells, Turner of Ely, Lake of Chichester, White of Peterborough, and Trelawney of Bristol, together with Sancroft the primate, concerted an address, in form of a petition, to the king, which, with the warmest expressions of zeal and submission, remonstrated that they could not read his declaration consistent with their consciences, or the respect they owed the protestant religion. The king received their petition with marks of surprise and displeasure. He said he did not expect such an address from the church of England, particularly from some amongst them; and persisted in his orders for their obeying his mandate.

As the petition was delivered in private, the king summoned the bishops before the council, and there questioned them whether they would acknowledge it. They for some time declined giving an answer; but being urged by the chancellor, they at last owned the petition. On their refusal to give bail, an order was immediately drawn for their commitment to the Tower, and the crown lawyers received directions to proseute them

for a seditious libel. The king gave orders that they should be conveyed to the Tower by water, as the whole city was in commotion in their favour. The people were no sooner informed of their danger, than they ran to the river side in prodigious multitudes, craving their blessing, calling upon heaven to protect them, &c. The very soldiers by whom they were guarded, kneeled down before them, and implored their forgiveness.

The 29th day of June, 1688, was fixed for the trial of the bishops; and their return was still more splendidly attended than their imprisonment. Twenty-nine peers, a great number of gentlemen, and an immense crowd of people, waited upon them to Westminster-hall. The dispute was learnedly managed by the lawyers on both sides. The jury withdrew into a chamber, where they passed the whole night, but next morning they returned into court, and pronounced the bishops not guilty. Westminster-hall instantly rang with loud acclamations, which were communicated to the whole extent of the city. They even reached the camp at Hounslow, where the king was at dinner in lord Feversham's tent. His majesty demanding the cause of those rejoicings, and being informed that it was nothing but the soldiers shouting for the delivery of the bishops, "Call you that nothing!" cried he; "but so much the worse for them." Immediately after this, the king struck out two of the judges, Powel and Holloway, who had appeared to favour the bishops. He issued orders to prosecute all those clergymen who had not read his declaration, and all had refused it except 200. He sent also a mandate to the new fellows whom he had obtruded on Magdalen college, to elect for president, in the room of Parker, lately deceased, one Gifford, a doctor of the Sorbonne, and titular bishop of Madura.

As the king found the clergymen every where averse to his measures, he was willing next to try what he could do with the army. He thought if one regiment should promise implicit obedience, their example would soon induce others to comply. He therefore ordered one of the regiments to be drawn up in his presence, and desired that such as were against his late declaration of liberty of conscience should lay down their arms. He was surprised to see the whole batallion ground their arms, except two officers and a few Roman catholic soldiers. A fortunate circumstance happened about this time in his family: a few days before the acquittal of the bishops, the queen was brought to bed of a son, who was baptized by the name of JAMES. This would, if any thing could at that time, have served to establish him on the throne: but so great was the animosity against him, that a story was propagated that the child was supposititious; and so great was the monarch's pride, that he scorned to take any precautions to refute the calumny.

Though the enthusiasm of James himself bordered upon madness, the most wild of his religious projects seem to have been suggested by his enemies to accomplish his ruin. The earl of Sunderland, whom he chiefly trusted, was a man of abandoned principles, insatiable avarice, and fitted by nature for stratagem, deception, and intrigue. The love of money was his ruling passion, and he sold his influence to the highest bidder. To such a degree was he mercenary, that he became at once the pensioner of the prince

of Orange and of the king of France. The former, who had long fixed his eye on the English throne, watched James's motions, and took every advantage of his errors. He had laid his schemes so extensively, that nothing but the birth of a male heir to the crown of England could possibly prevent him from an almost immediate possession of the kingdom. He had the address to render two-thirds of the powers of Europe interested in his success. The treaty of Augsburgh, formed to break the power of France, could not accomplish its object without the accession of England. The house of Austria, in both its branches, preferred their political views to their zeal for the Romish faith, and promoted the dethronement of James, as the only means to humble Louis XIV. Odeschalchi, who, under the name of Innocent XI. filled then the papal chair, was gained to the measures of the prince of Orange by other considerations, as well as through his fixed aversion to France. The prince of Orange sent his intimate friend, the prince of Vaudemont, to Rome, to procure the aid of the pope. He explained to his holiness, that the catholic princes were in the wrong to expect any advantage to their faith from James, as being a declared papist rendered his people averse to all his measures. As for himself, should he have the good fortune to mount the throne of England, he might take any step in favour of the Roman catholics without jealousy: and he promised to procure a toleration for the papists, should the pope, the emperor, and the king of Spain, favour his attempt. This negotiation procured the desired effect. Innocent contributed, with the money of the church, to expel a Roman catholic prince from his throne.

Though the contest with the bishops had completed the king's unpopularity, he derived the suddenness of his ruin from the birth of a prince of Wales. That circumstance increased the fears of his subjects in proportion as it raised his security and hopes. In the reign of a prince to be educated under the prejudices of such a father, nothing but a continuance of the same unconstitutional measures could be expected. So low indeed was his credit sunk among his people at this time, and such prescience they all seemed to have of his fate, that the child had like to have died before a wet nurse could be procured to suckle him.

The prince of Orange, seeing the national discontent now raised to the highest pitch, resolved to take advantage of it. He began by giving one Dykevelt, his envoy, instructions to apply in his name to every religious sect in the kingdom. To the church party he sent assurances of favour and regard; and protested, that his education in Holland had no way prejudiced him against episcopacy. To the non-conformists he sent exhortations, not to be deceived by the insiduous caresses of their known enemy, but to wait for a real and sincere protector, &c. In consequence of these insinuations, the prince soon received invitations from the most considerable persons in the kingdom. Admirals Herbert and Russel assured him in person of their own and the national attachment; Henry Sidney, brother to Algernon, and uncle to the earl of Sunderland, came over to him with assurances of an universal combination against the king; lord Dumblaine, son to the earl of Danby, being master of a frigate, made several voyages to Holland, and carried from many of the nobility tenders of duty, and even considerable sums of

money to the prince of Orange. Soon after, the bishop of London, the earls of Danby, Nottingham, Devonshire, Dorset, and several other lords, gentlemen, and principal citizens, united in their addresses to him, and intreated his speedy descent. The people, though long divided between whig and tory, now joined against their unhappy sovereign as a common enemy.

William, therefore, determined to accept of their invitations; and this the more readily, as he perceived the malcontents had conducted themselves with prudence and secrecy. Having the principal servants of James in pay, he was minutely informed of the most secret actions and designs of that prince. His intelligence came through Sidney from Sunderland, who betrayed the very measures which he himself had advised. The prince had a fleet ready to sail, and troops provided for action, before the beginning of June, 1688.

The king of France was the first who gave James warning of his danger, and offered to assist him in repelling it. But he declined this friendly offer, lest it should be said that he had entered into a private treaty with that monarch to the prejudice of the protestant religion. Being also deceived and betrayed by Sunderland, he had the weakness to believe, that the reports of an invasion were invented in order to frighten him into a strict connection with France. He gave credit to the repeated assurances of the States, that the armament prepared in their ports was not designed against England. Nay, he even believed the assertions of the prince himself, whose interest it was to deceive. Sunderland descanted against the possibility of an invasion, and turned to ridicule all who believed the report. Having, by the prior consent of James, taken possession of all foreign correspondence, he suppressed every intelligence that might alarm; and even all others whom James trusted, except Dartmouth, affected long to give no faith to the reports of an invasion.

Louis, finding his first offers rejected, next proposed to march down his army to the frontiers of the Dutch provinces, and thus detain their forces at home for their own defence. But this proposal met with no better reception than the former. Still Louis was unwilling to abandon a friend and ally whose interest he regarded as closely connected with his own. He ventured to remonstrate with the Dutch against the preparations they were making to invade England. The Dutch treated his remonstrance as an officious impertinence, and James himself declined his mediation.

The king of England having thus rejected the assistance of his friends, and being left to face the danger alone, was astonished with an advice from his minister in Holland, that an invasion was not only projected, but avowed. When he first read the letter containing this information, he grew pale, and the letter dropt from his hand. He saw himself on the brink of destruction, and knew not to whom to apply for protection. In this emergency, Louis wrote to James with his own hand, that, to divert the Dutch from their intended invasion of England, he would lay siege to Maestricht with 30,000 men. James communicated this intelligence to Sunderland, and he to the prince of Orange. Six thousand men were thrown into Maestricht; and the design of Louis, as being impracticable, was laid aside. On this, Louis, being disgusted with James, turned his arms towards Germany. The dauphin laid siege to Philipsburgh, on the 5th of

October; and prince Clement of Bavaria, by throwing a strong garrison into Cologn, effectually secured the states of Holland from any sudden danger from the arms of France.

James had now no resource but in retreating from those precipitate measures which had plunged him into inextricable distress. He paid court to the Dutch, and offered to enter into any alliance with them for their common security. He replaced in all the counties of England all the deputy lieutenants and justices who had been deprived of their commissions for their adherence to the test and penal laws. He restored the charters of such corporations as he had possessed himself of; he annulled the high commission court; he reinstated the expelled president and fellows of Magdalen college; and was even reduced to caress those bishops whom he had so lately persecuted and insulted.

All these concessions, however, were now too late; they were regarded as the effects of fear and not of repentance. Indeed, it is said, he very soon gave proofs of his insincerity; for, hearing that the Dutch fleet was dispersed, he recalled those concessions he had made in favour of Magdalen college; and, to show his attachment to the Romish church, at the baptism of the prince of Wales, he appointed the pope one of the sponsors.

In the mean time, William set sail from Helvoetsluys with a fleet of near 500 vessels, and an army of above 14,000 men. Fortune, however, seemed at first every way unfavourable to his enterprise. He was driven back by a dreadful storm; but he soon refitted his fleet, and again set sail for England. It was given out that this invasion was designed for the coasts of France; and many of the English, who saw the fleet pass along their coasts, little suspected the place of its destination. It happened that the same wind which sent the Dutch to their place of destination, detained the English fleet in the river; so that the Dutch passed the straits of Dover without molestation; and after a voyage of two days, landed at Broxholme in Torbay, on the 5th of November, the anniversary of the gunpowder treason.

But though the invitation from the English was very general, the prince for some time had the mortification to find himself joined by very few. He continued for ten days in expectation of being joined by the malcontents, and at last was going to despair of success. But just when he began to deliberate about reimbarking his forces, he was joined by several persons of consequence, and the whole country soon after flocked to his standard.

The first person that joined the prince was major Barrington, and he was quickly followed by the gentry of the counties of Devon and Somerset; sir Edward Seymour made proposals for an association, which was signed by great numbers; and every day there appeared some effect of that universal combination into which the nation had entered against the measures of the king.

This was followed by the defection of the army. Lord Colchester, son to the earl of Rivers, first deserted to the prince; lord Cornbury, son to the earl of Clarendon, carried off the greatest part of three regiments of cavalry at once; and several officers of distinction informed Feversham, their general, that they could not in honour fight

against the prince of Orange. Soon after this, the unhappy monarch found himself deserted by his own servants and creatures. Lord Churchill had been raised from the rank of a page, and had been invested with a high command in the army; he had been created a peer, and owed his whole fortune to the king's bounty; yet even he deserted among the rest, and carried with him the duke of Grafton, natural son to the late king, colonel Berkely, and some others.

In this universal defection, James, not knowing where to turn, began to think of requesting assistance from France, when it was now too late. He wrote to Leopold, emperor of Germany, but in vain; that monarch only returning for answer, That what he had foreseen had happened. James had some dependence on his fleet; but they were entirely disaffected. In a word, his interests were deserted by all, for he had long deserted them himself. He still found his army, however, to amount to 20,000 men; and had he led them immediately to battle, it is possible they might then have fought in his favour. But James's misfortunes had deprived him of his natural firmness and resolution; and seeing himself deserted by those in whom he thought he could have placed most confidence, he became suspicious of all, and was in a manner deprived even of the power of deliberation.

In this extremity of distress, the prince of Denmark and Anne, James's favourite daughter, perceiving the desperation of his circumstances, cruelly resolved to take part with the prince of Orange. When the king was informed of this, he was stung with the most bitter anguish. "God help me," cried he, "my own children have forsaken me." To add to his distress as a parent, he was accused of being accessary to the death of his own child. Her nurse, and her uncle, the earl of Clarendon, went up and down like distracted persons, affirming that the papists had murdered the princess. They publicly asked the queen's servants whither they had conveyed her; and they contributed to inflame the populace, whose zeal had already driven them to tumult and disorder. It was, however, soon known that she fled, under the conduct of the bishop of London, to Northampton.

On the 30th of November, 1688, James sent three of his noblemen to treat with the prince of Orange. But though the latter knew very well that the king's commissioners were in his interest, his behaviour showed plainly that he now thought the time of treating was past. For some time he would not admit them to an audience; and when he did, would give no satisfactory answer. James now began to be afraid of his personal safety. But what most affected him was the terrors of the queen for herself and her infant son. He therefore resolved to send them abroad. They crossed the river in a boat at Whitehall, in a stormy and rainy day. They were carried to Gravesend in a coach, under the conduct of the count de Lanzun: a yacht, commanded by captain Gray, which lay there ready for the purpose, soon transported them in safety to Calais.

The king was now so dispirited and distracted, that he resolved to leave the kingdom at once, and thus throw every thing into confusion. He threw the great seal into the Thames: he left none with any authority to conduct affairs in his absence; and he vainly hoped to derive advantage to his affairs from anarchy and disorder. About

twelve at night, on the 10th day of December, he disguised himself, took a boat at Whitehall, and crossed the river. Sir Edward Hales, with another friend, met him at Vauxhall with horses. He mounted; and, being conducted through by-ways by a guide, he passed in the night-time to the Medway, which he crossed by Ailesford bridge. At Woolpeck he took fresh horses, sent thither before by Sheldon, one of his equerries, who was in the secret of his flight. He arrived at 10 o'clock at Emby-ferry, near Feversham, where a custom-house hoy, hired by sir Edward Hales, lay ready to receive them on board. But the wind blew fresh, and the vessel had no ballast. The master, therefore, easily persuaded the king to permit him to take in ballast at Shilness. It being half ebb when they ran ashore, they designed to sail as soon as the vessel should be afloat. But when the vessel was almost afloat, she was boarded by three fishing boats, belonging to Feversham, containing 50 men. They seized the king and his two companions, under pretence of their being papists, that wanted to escape from the kingdom. They turned up Feversham water with the tide; but still the king remained unknown. Sir Edward Hales placed privately 50 guineas in the hands of the captain, as an earnest of more, should he permit them to escape. He promised: but was so far from keeping his word, that he took what money they had, under pretence of securing it from the seamen; and having possessed himself of their all, he left them to their fate.[1]

The unfortunate fugitives were at length carried in a coach to Feversham, amid the insults, clamours, and shouts of the sailors. When the king was brought to the inn, a seaman who had served under him knew him, and melted into tears; and James himself was so much moved at this instance of his affection, that he wept. The other fishermen, who had treated him with such indignity before, when they saw his tears, fell upon their knees. The lower inhabitants of the whole village gathered round him; but the better sort fled from his presence. The seamen, however, formed themselves into a guard round him, and declared, that "a hair of his head should not be touched." In the mean time, sir James Oxendon, under the pretence of guarding him from the rabble, came with the militia to prevent his escape. The king found a change in his condition when he was taken out of the hands of the sailors. The commanders of the militia showed him no respect. He was even insulted by the common soldiers. A letter which he intended to send to London for clothes, a change of linen, and some money, was stopped by those who pretended to protect his person.

All things, in the mean time, ran into confusion at London, and the prince of Orange exercised in his own person all the functions of royalty. He issued a declaration to the disbanded army to re-assemble themselves. He ordered the secretary at war to bring him a list of the king's troops. He commanded the lord Churchill to collect his troop of horse guards. He sent the duke of Grafton to take possession, in his name, of Tilbury fort. The assembly of peers adjourned to the council-chamber at Whitehall; and, to give the appearance of legality to their meeting, chose the marquis of Halifax for their president. While this assembly was sitting, on the 13th day of December, a poor countryman, who had been engaged by James, brought an open letter from t unfortunate prince to London. It had no superscription, and it was addressed to

none. It contained, in one sentence only, his deplorable condition when in the hands of a desperate rabble. This poor messenger of their fallen sovereign had long waited at the council door, without being able to attract the notice of any who passed. The earl of Mulgrave at length, apprised of his business, had the courage to introduce him to the council. He delivered his open letter, and told the state of the king with tears. The assembly were so much moved, that they sent the earl of Feversham, with 200 of the guards, towards Feversham. His instructions were to rescue him first from danger, and afterwards to attend him to the sea-coast, should he chose to retire. He chose, however, to return to London; but the prince of Orange sent a message to him, desiring him to advance no nearer the capital than Rochester. The messenger missed James by the way.

The king sent Feversham with a letter to the prince of Orange, requesting his presence in London to settle the nation. He himself proceeded to that place, and arrived on the 16th day of December. Doubting the fidelity of the troops who were quartered at Westminster, he chose to pass through the city to Whitehall. Never prince returning with victory to his capital, was received with louder acclamations of joy. All the streets were covered with bonfires. The bells were rung, and the air was rent with repeated shouts of gladness. All orders of men flocked to his coach; and when he arrived at Whitehall, his apartments were crowded with people, who came to express their joy at his return.

The prince of Orange received the news of his return with an haughty air. His aim from the beginning was to force him by threats and severities to relinquish the throne. The Dutch guards were ordered to take possession of Whitehall, and displace the English. The king was soon after commanded by a message, which he received in bed at midnight, to leave his palace next morning, and to depart for Ham, a seat of the duchess of Lauderdale. He desired, however, permission to retire to Rochester, a town not far from the sea-coast, and opposite to France. This was readily granted: and it was now perceived that the harsh measures of the prince had taken effect, and that the king meditated an escape to France.

The king, surrounded by the Dutch guards, arrived at Rochester on the 19th day of December. The restraint put upon his person, and the manner in which he had been forced from London, raised the indignation of many, and the compassion of all. The English army, both officers and soldiers, began to murmur; and had it not been for the timidity and precipitation of James himself, the nation had certainly returned to their allegiance. He remained three nigh at Rochester, in the midst of a few faithful friends. The earls of Arran, Dumbarton, Ailesbury, Litchfield, and Middleton, were there; and, with other officers of merit, the gallant lord Dundee. They argued against his flight with united efforts. Several bishops, some peers, and many officers, intreated his stay in some part of England. Message followed message from London. They represented that the opinions of men began to change, and that events would daily rise in favour of his authority. Dundee added his native ardour to his advice. "The question, sir," said he, "is, Whether you shall stay in England, or fly to France? Whether you shall trust the returning zeal of your native subjects, or rely

on a foreign power? Here you ought to stand. Keep possession of a part, and the whole will submit by degrees. Resume the spirit of a king. Summon your subjects to their allegiance. Your army, though disbanded, is not dispersed. Give me your commission: I will gather 10,000 of your troops. I will carry your standard at their head through England, and drive before you the Dutch and their prince." The king replied, That he believed it might be done; but that it would raise a civil war, and he would not do so much mischief to a nation that would so soon come to their senses again. Middleton urged his stay, though in the remotest part of the kingdom. "Your majesty," said he, "may throw things into confusion by your departure; but it will be but the anarchy of a month: a new government will soon be settled, and you and your family will be ruined."

These spirited remonstrances had no effect upon James. He resolved to quit the kingdom; and having communicated his design to a few of his friends, he passed at midnight through the back door of the house where he lodged, and, with his son, the duke of Berwick, and Biddulph, one of his servants, went in a boat to a smack, which lay waiting for him without the fort of Sheerness. By reason of a hard gale, they were forced to bear up toward Leigh, and to anchor on the Essex side, under the lee of the land. When the gale slackened, they reached the buoy of the Narrows without tacking; but not being able to weather the Goodwin, they were forced to sail through the Downs. Seven ships lay there at anchor; but the smack passed unquestioned along. Unable to reach Calais, she bore way for Boulogne, and anchored before Ambleteuse. The king landed at three o'clock in the morning of Tuesday, the 25th of December; and taking post, soon joined the queen at St. Germains.

James having thus abandoned his dominions, the prince of Orange remained master of them of course. By the advice of the house of lords, the only member of the legislature remaining, he was desired to summon a parliament by circular letters; but the prince, unwilling to act upon so imperfect an authority, convened all the members who had sat in the house of commons during any parliament of Charles II. and to these were added the mayor, aldermen, and fifty of the common council of London; and the prince, being thus supported by an assembly deriving its authority from himself, wrote circular letters to the counties and corporations of England to call a new parliament.

The house being met, which was mostly composed of the whig party, thanks were given to the prince of Orange for the deliverance he had brought them; after which, they proceeded to settle the kingdom. A vote soon passed both houses, that king James II. having endeavoured to subvert the constitution of the kingdom, by breaking the original contract between the king and his people, and having, by the advice of Jesuits and other wicked persons, violated the fundamental laws, and withdrawn himself out of the kingdom, had abdicated the government; and that the throne was thereby vacant.

The king being thus deposed, it was easy for William to get himself appointed as his successor. Proposals were made for electing a regent. Others were for investing the princess of Orange with regal power, and declaring the young prince supposititious. To

these proposals, however, William opposed the following decisive argument, viz. that "he had been called over to defend the liberties of the British nation; and that he had happily effected his purpose; that he had heard of several schemes proposed for establishing the government; that, if they chose a regent, he thought it incumbent upon him to inform them that he would not be that regent; that he would not accept of the crown under the princess his wife, though he was convinced of her merits; that, therefore, if either of these schemes be adopted, he could give them no assistance in the settlement of the nation; but would return home to his own country, satisfied with his aims to secure the freedom of theirs."

Upon this, after a long debate in both houses, a new sovereign was preferred to a regent, by a majority of two voices. It was agreed that the prince and princess of Orange should reign jointly as king and queen of England; while the administration of government should be placed in the hands of the prince only. The marquis of Halifax, as speaker of the lords, made a solemn tender of the crown to their highnesses, in the name of the peers and commons of England. The prince accepted the offer; and that very day, February 13th, 1689, William and Mary were proclaimed king and queen of England.

Though Mary was comprehended in the royal title, she never possessed either the authority of a queen, or the influence of a wife. Her easy temper had long been subdued by the stern severity of a husband, who had very few amiable qualities. Being brought up in a manner under the tuition of her spouse, and in some degree confined by his orders, she was accustomed to adopt implicitly his political maxims, and even his thoughts; and, in consequence of her want of importance with him, she ceased to be an object of consequence in the eyes of the nation.

The Scotch nation soon followed the example of England. The estates of the northern realm, having met at Edinburgh, deposed James for his repeated violations of their constitution; asserted their rights and liberties in a solemn declaration; offered their crown to William and Mary, in confidence of just and legal government; and settled the future disposal of it in that mode which had been adopted by the English convention.

With regard to Ireland, some difficulties were encountered by William before he established himself in the sovereignty of that kingdom. The earl of Tyrconnel still retained the government of it in the name of James; and the power of the catholic faction rendered great exertions necessary for the reduction of that island under the sway of the new possessor of the crown of England. The chief events of this war will be related in the succeeding chapter of our work.

A declaration of rights was presented to William by the convention, when they offered him the crown, which may be considered as an elucidation and improvement of Magna Charta. It condemned, as illegal and unjustifiable, the suspending and dispensing power assumed by James; the court of high commission; the exaction of money from the people, without consent of parliament; the maintenance of a standing army without the same consent; all grants and promises of fines and forfeitures before conviction; the demand of excessive bail; the imposition of exorbitant fines; and the

infliction of cruel and unusual punishments. It asserted the right of the subject to petition the king; the right of the protestants to have arms for their defence; the freedom of parliamentary elections; the liberty of speech in parliament; the due empanneling of juries; the necessity of having freeholders for jurors in cases of high treason; and the expediency of frequently holding parliaments, for the redress of all grievances, and for the improvement and preservation of the laws.

The generality of the arts were improved in the busy period, during which the house of Stuart possessed the throne, though not in equal degrees. Husbandry flourished; but corn was frequently imported. New flowers and fruits were introduced into our gardens; and pleasure-grounds were variously embellished, but without taste or elegance.

Though the English clothiers excelled in their art, they were unable to act as dyers of woollen before the reign of Charles II. when the secret of that branch was communicated to them by a continental traveller. They continued to import fine linen, and the more costly articles of silken manufacture.

The Grecian style was now applied to public structures, in preference to the Gothic; and many private houses were planned with a degree of taste which had not before been displayed in England. The interior decorations and furniture were also highly improved.

The increase of trade was considerable; and it was promoted by colonial institutions. Though North America had been discovered by navigators whom Henry VII. had sent out, no settlement was established by the English in the sixteenth century; but, in the reign of James I. Virginia was colonised with success. New England was afterwards planted; and, before the Revolution, the provinces of New York, New Jersey, Pennsylvania, Maryland, and Carolina, besides several of the West India islands, were inhabited by British emigrants. A productive fishery was also prosecuted on the banks of Newfoundland. In the eastern hemisphere, various factories were stationed in the ports of India; and an intercourse was opened with the Chinese empire.

The navigation act, and the adventurous spirit of the times, greatly contributed to the multiplication of English shipping; and, under Charles II. and his brother, superior skill in naval construction appeared. The royal revenue, the wealth of the nation, and the general accommodations of society, could not but flourish amidst the extension of commerce to every quarter of the globe.

The ordinary revenue of James I. amounted, in his fifteenth year, to 450,000*l.*; and the extraordinary sums which he procured in his whole reign, both by legal and illegal means, including his receipts from France and Holland, bordered on 2,500,000*l.* Dividing the latter sum among the years of his sway (22), we find that it allows above 113,630*l.* for each year. The revenue of his successor, in the most productive years before the civil war, have been estimated at 900,000*l.*

Taxes, far exceeding all former imposts, were levied by the parliamentary usurpers of the sovereign power. They subjected both real and personal property to considerable defalcation, and imposed an excise on various articles of general consumption. Upon an average of several years, the amount of the taxes, in those times of usurpation, may be estimated at 2,000,000*l.* per annum. Confiscations, and some other sources of profit, are not included in this estimate.

After the Restoration, a part of the excise was permanently settled on the crown, as an equivalent for the abolition of some of the oppressive remains of the feudal system. The bill enacted on this occasion, subverted the tenure of knight-service, by which the greatest part of the English lands had for almost six centuries been holden. This service had long ceased to be personal, being commuted for a pecuniary payment, with which troops were hired. By the statute in question, free socage became the principal tenure of the realm. Copyholds, which had already arisen from the dissolution or decline of villanage, were reserved; as was also the ecclesiastical tenure of free alms.

Besides the established revenue of Charles II. (1,200,000*l.*) the occasional votes of the parliament produced a sum sufficient to add, for each year of his actual reign, above 476,800*l.* The whole income of James II. was about two millions.

The study of natural philosophy flourished in this period; and a public body, called the Royal Society, was formed for the promotion of it. The professions of divinity, law, and physic, were honoured with names of high celebrity. Poetry soared to the noblest heights; and the votaries of general literature were numerous and respectable. The fine arts, in the mean time, were not neglected. Dobson and the two Olivers acquired some reputation as painters; and Simon was an excellent sculptor of coins and medals; but, in the higher branches of sculpture, as well as in painting and music, foreigners were superior to the English.

CHAPTER XIV.

British Empire——*From the Revolution to the death of Anne.*

WILLIAM began his reign with issuing a proclamation for continuing in office all protestants that had been in place on the first of the preceding December. On the 17th of the month he formed his privy council, which consisted chiefly of such persons as had been most active in raising him to the throne. To gratify as many as possible of his friends, the several boards, and even the chancery, were put into commission. The benches of the exchequer and common law were filled with persons who had distinguished themselves against the measures of the late king. The earl of Nottingham, who had violently opposed the elevation of William, and the earl of Shrewsbury, who had adhered to his views, were made secretaries of state. The marquis of Halifax, and the earl of Danby, though rivals in policy, were admitted into the cabinet; the first as lord privy seal, the second as president of the council. His Dutch friends, in the mean time, were not forgotten by the king. Bentinck, his favourite, was made a privy counsellor, groom of the stole, and privy purse. Auverquerque was appointed master of the horse. Zuylstein received the office of master of the robes. Schomberg was placed at the head of the ordnance.

As William was educated in a foreign protestant church, he did not, on his accession to the British throne, display that intolerant zeal for the established religion of this country, which unhappily influenced the minds of too many of the clergy. He made unsuccessful attempts to procure the admission of all protestants, that were able and willing to serve, into offices of trust. But at length the proposition for the toleration of protestant dissenters passed through both houses, and received the royal assent. From this time the spirit of bigotry has been gradually subsiding, and an increasing liberality of sentiment has marked the character of the British nation.

The affairs of Scotland, at this time, occupied some share of the king's attention; but they were settled with less difficulty than those of Ireland. By those stipulations which accompanied the grant of the crown of Scotland to William and Mary, the convention of that realm secured the re-establishment of those rights and privileges which had been disregarded by James and his brother; and gained the favourite point of the restoration of the presbyterian system. The partisans of James had laboured to prevent this settlement; but, as they were greatly out-numbered in the convention, their intrigues and efforts were fruitless. Incensed at their disappointment, some of them resolved to take arms against the new government. Their leader was the gallant Dundee, who exerted himself with indefatigable activity in a cause to which he was zealously attached. By his influence and address, he strengthened the declining interest of James; and, repairing to the Highlands, he drew to his standard a consider-

able body of hardy warriors. Though his followers were discouraged by the surrender of the castle of Edinburgh, which the duke of Gordon had defended for some months against William's forces. They received a small reinforcement from Ireland; and, after several skirmishes had happened between detached parties, a general engagement took place at Gilbirankie, near Dunkeld. The forces of the deposed king exceeded 6000 men; while those of his successor, commanded by lieutenant-general Mackay, were less numerous. The example of Dundee infused such spirit into his men, that they overcame all opposition, and put their adversaries to flight; but that nobleman being killed by an accidental shot, the vanquished enjoyed all the advantage of the victory. For want of an able leader of the Jacobites (as the friends of James were styled), that cause now languished in Scotland; and a defeat which was afterwards sustained by the promoters of it, put an end to their hopes of overturning the new settlement, though some time elapsed before all the Highland clans were reduced to perfect submission.

In Ireland, the friends of James were numerous and powerful. The earl of Tyrconnel had exerted all the strength of government in favour of the catholics; had put the military power into their hands; had bestowed on their leaders the chief civil employments; and had taken every opportunity of ruining the interest of their religious adversaries. To guard against the resentment of an oppressed party, he had disarmed the protestants in Dublin and many other towns; and he was boldly prosecuting his schemes of lawless tyranny, when the indignation which he had aroused broke out into action. A body of papists being ordered to secure Londonderry, the inhabitants shut their gates against them, plundered the magazine of arms, and prepared for a resolute defence. The people of Enniskillen, inflamed with the same spirit of liberty and protestant zeal, refused admission to the forces sent by Tyrconnel to take possession of their town; and entered into an association with the citizens of Londonderry; a confederacy in which the greatest part of the provincials of Ulster joined. In consequence of importunate applications to William for speedy succours, small supplies of arms, ammunition, and money, were sent to Londonderry from England; and two regiments at length arrived for the defence of the town. But, as the grand army of the catholics then approached it, colonel Lundy, to whom the government of it had been committed, called a council of war; and, having exaggerated the indefensible condition of the place, and the ill success which had attended the protestants in some skirmishes, he proposed, either from pusillanimity or treachery, that the two regiments should return, and that the citizens should endeavour, by an immediate submission, to procure the best terms from the enemy. These proposals being adopted by the majority of those who were present, the regiments hastened back to England with their colonels, who, on their arrival, were cashiered by the king.

On the 7th day of March, 1689, James embarked at Brest. The whole force of his expedition consisted of 14 ships of war, six frigates, and three fire ships. Twelve hundred of his native subjects in the pay of France, and 100 French officers, composed the whole army of James. He landed at Kinsale without opposition, on the 12th day of

the month, where he was received with the utmost demonstrations of joy. His first care was to secure, in the fort of Kinsale, the money, arms, and ammunition, which he brought from France, and put the town in some posture of defence; which having done, he advanced to Corke. Tyrconnel arrived at this place soon after, and brought intelligence of the rout at Drumore. The king was so much pleased with his attachment and services, that he created him a duke; after which he himself advanced towards Dublin. The condition of the rabble, who poured round him under the name of an army, was not calculated to raise his hopes of success. The most of them were only provided with clubs: some had sticks tipt with iron; and even of those who were best armed, scarce two in a hundred had muskets fit for service. Their very numbers distressed their sovereign, and ruined the country; insomuch that James resolved to disband the greatest part of them. More than 100,000 were already on foot in the different parts of the island. Of these he reserved 14 regiments of horse and dragoons, and 35 regiments of foot; the rest he ordered to their respective homes, and armed those that were retained in the best manner he could.

Being received at Dublin with an appearance of universal joy, James proceeded immediately to business. He ordered, by proclamation, all protestants who had abandoned the kingdom to return. He commanded, in a second proclamation, all papists except those in his army, to lay up their arms, and put an end to the robberies and depredations which they had committed in the violence of their zeal. He raised the value of the currency by a proclamation; and he summoned a parliament to meet on the 7th of May, to settle the affairs of the kingdom. The protestant clergy represented their grievances in an address; and the university of Dublin appeared with complaints and congratulations. He assured the first of his absolute protection, and a full redress; and he promised the latter not only to defend, but even to enlarge their privileges.

On the 8th of April, James left Dublin, resolving to lead his army against the insurgents in person. They retired before him, and the king laid siege to Londonderry, The besieged made such a vigorous resistance, as has made the place remarkable ever since: but being reduced to the last extremity, they would have been obliged to surrender, had not they been relieved, on the 28th of July, by seven ships laden with provisions: upon which the siege was immediately raised.

In the mean time, the distressed situation of James, and his absolute dependence upon France, drove him into measures which otherwise he never would have thought of. His soldiers for some time had been supported by their officers, or subsisted by depredation. The funds of the officers were at last exhausted, and the country itself could no longer bear the riot and injustice of the soldiers. Pressed by these difficulties, James, by the advice of his council, resolved to coin pieces of copper, which should be received for silver. He saw well enough the inconvenience of this measure; but all Ireland possessed not the means of paying the army in current coin to the middle of June. Of the French remittances only 200,000 livres remained; and the king found it absolutely necessary to reserve that sum, to forward his measures with regard

to Britain, and to procure intelligence of the motions of his enemies. The army was satisfied even with this appearance of money, and the people received the fictitious coin, in hopes of being repaid in a more favourable state of affairs. A tax of 20,000*l.* a month, granted for 13 months by the parliament, furnished government with an appearance of resources; and in the mean time the king endeavoured to support the former revenue. He opened a trade with France to supply the want of commerce with England. But the French, knowing their own importance, and the necessity of the unfortunate monarch's affairs, claimed and obtained advantages in traffic which offended his own subjects.

To add to the distress of James, Ireland was now invaded by 10,000 men, under the command of the duke of Schomberg. They appeared, on the 12th of August, 1689, in 90 transports, on the coast of Donaghadee, in the county of Down. Next day Schomberg landed, without opposition, his army, horses, and train of artillery. Having marched to Belfast on the 15th day, he continued in that place four days to refresh his troops. He invested Carrickfergus, and threw into it 1000 bombs, which laid the houses in ashes. The garrison having expended their powder to the last barrel, marched out with all the honours of war. But Schomberg's soldiers broke capitulation. They disarmed and stripped the inhabitants, without any regard to sex or quality; even women, stark naked, were publicly whipped between the lines; and all this under pretence of cruelties of the same kind having been committed by the papists.

Though Schomberg was an experienced general, who had passed a life of 80 years almost continually in the field, he found himself at a loss how to carry on the war in Ireland. He did not consider the dangers that threatened the health of his troops by confining them too long in one place; and he kept them in a low moist camp near Dundalk, almost without firing of any kind; so that the men fell into fevers and fluxes, and died in great numbers. The enemy were not less afflicted with similar disorders. Both camps remained for some time in sight of each other; and at last, the rainy season approaching, both armies quitted their camps at the same time, and retired into winter quarters.

The bad success of the campaign, and the miserable situation of the protestants in Ireland, at length induced William to attempt their relief in person. Accordingly, he left London on the 4th of June, 1690, and arrived at Carrickfergus on the 14th of that month. From thence he passed to Lisburn, the head quarters of the duke of Schomberg. He reviewed at Lough-Britland his army, which consisted of 36,000 men, and was composed of English, Dutch, Germans, Danes, and French. Being supplied with every necessary, and in high health and spirits, they seemed absolutely certain of victory. The Irish army, having abandoned Ardee at their approach, fell back to the south of the Boyne. On the bank of that river they were joined by James, who had marched from Dublin at the head of his French auxiliaries. The banks of the Boyne were steep, the south side hilly, and fortified with ditches. The river itself was deep, and it rose very high with the tide. These advantages induced James, contrary to the

opinion of his officers, to keep possession of this post. His army was inferior in numbers, discipline, and every thing, to his enemies; but flight, he thought, would dispirit his troops and tarnish his own reputation: he therefore resolved to put the fate of Ireland on the issue of a battle. Urged by his friends in England, and encouraged by a projected invasion of that kingdom by France, he had resolved to quit Ireland; and to this he was farther encouraged by the assurance of aid from a powerful fleet that had already entered the narrow seas. But the strength of his situation, and the sudden appearance of the enemy, which made even a retreat dangerous, induced him to defer his purpose.

William was no sooner arrived, than he rode along the river's side, in sight of both armies, to make proper observations on the plan of battle; but, in the mean time, being perceived by the enemy, a cannon was privately brought out and planted against him where he was sitting. The shot killed several of his followers, and he himself was wounded in the shoulder. The news of his being slain was instantly propagated through the Irish camp, and even sent off to Paris; but William, as soon as his wound was dressed, rode through the camp, and quickly undeceived his army.

The next day, June 30th, the battle began at six in the morning. James's forces behaved with great resolution, but were at last defeated, with the loss of 1500 men. The protestants lost about one third of that number; but among these was their brave general the duke of Schomberg. He was killed by a discharge from his own troops, who, not knowing that he had been accidentally hurried into the midst of the enemy, fired upon the body of men who surrounded him. During the action, James stood on the hill of Dunmore, surrounded with some squadrons of horse; and at intervals was heard to exclaim, when he saw his own troops repulsing those of the enemy, "O spare my English subjects!" While his troops were yet fighting, he quitted his station; and leaving orders to guard the pass at Duleek, made the best of his way to Dublin. He advised the magistrates of that city to make the best terms they could with the victors; and he himself set out for Waterford, where he immediately embarked for France. When he first deserted his troops at the Boyne, O'Regan, an old Irish captain, was heard to say, "That if the English would exchange generals, the conquered army would fight them over again."

The victory at the Boyne was by no means decisive, and the friends of James resolved to continue their opposition to William. Sarsfield, a popular and experienced general, put himself at the head of the army that had been routed at the Boyne, and went farther into the country, to defend the banks of the river Shannon. James appointed one St. Ruth to command over Sarsfield, which gave the Irish universal discontent. On the other hand, general Ginkle, who had been appointed to command the English army in the absence of William, who was gone over to England, advanced towards the Shannon to meet the enemy. The only place where it was fordable was at Athrone, a strong walled town built on both sides of the river, and in the hands of king James's party. The English soon made themselves masters of that part of it which was on the hither side of the river; but the part on the opposite bank, being defended with great

vigour, was for a long time thought impregnable. At length it was resolved, in a council of war, that a body of folorn hope should ford the stream in the face of the enemy; and this desperate enterprise was performed with great resolution; the enemy were driven from their works, and the town surrendered at discretion. St. Ruth marched his army to its relief, but he came too late; for he no sooner approached, than his own guns were turned against him: upon which he instantly marched off, and took post at Aughrim, at ten miles distance, where he determined to wait the English army. Ginkle did not decline the combat, though he had only 18,000 men, while the Irish were above 25,000 strong. A desperate engagement ensued; but at last St. Ruth being killed, his troops gave way on all sides, and retreated to Limeric, where they determined to make a final stand, after having lost near 5000 of their best men.

Ginkle, wishing to put an end to the war at once, suffered as many of the Irish as chose, to retire to Limeric. In this last retreat the Irish forces made a brave defence. The siege commenced August 25th, 1691. Six weeks were spent before the place without any decisive effect. The garrison was well supplied with provisions, and provided with all means of defence. The winter was approaching, and Ginkle had orders to finish the war upon any terms. He therefore offered such conditions as the Irish, had they been victors, could scarce have refused with prudence. He agreed, that all in arms should receive their pardon; that their estates should be restored, their attainders annulled, and their outlawries reversed; that none should be liable for debts incurred through deeds done in the course of hostilities; that all Roman catholics should enjoy the same toleration with regard to their religion, as in the reign of Charles II.; that the gentry should be permitted to make use of arms; that the inferior sort should be allowed to exercise their callings and professions; that no oaths but that of allegiance should be required of high or low; that, should the troops, or any number of them, choose to retire into any foreign service, they should be conveyed to the continent at the expence of the king. Sarsfield who had obtained the title of earl of Lucan from James after his abdication, was permitted to retain a dignity which the laws could not recognise. The lords justices had arrived from Dublin on the 1st of October. They signed the articles together with Ginkle; and thus the Irish papists put a happy period to a war, which threatened their party with absolute ruin. In consequence of this treaty, about 14,000 of those who had fought for king James went over to France, having transports provided by government for conveying them thither. When they arrived, James thanked them for their loyalty, and told them that they should still fight for their old master; and that he had obtained an order from the king of France for their being new clothed, and put into quarters of refreshment. In this manner all James's expectations from Ireland were entirely frustrated, and the kingdom submitted quietly to the English government.

The French at last became sensible of their bad policy in not having better supported the cause of James, and therefore resolved to make a descent upon England in his favour. In pursuance of this scheme, the French king supplied James with an army, consisting of a body of French troops, some English and Scots refugees, and the Irish

regiments, which had been transported into France from Limeric, and were now become excellent soldiers, by long discipline and severe duty. This army was assembled between Cherbourg and La Hogue, and commanded by king James in person. More than 300 transports were provided for landing it on the opposite coast; and Tourville, the French admiral, at the head of 63 ships of the line, was appointed to favour the descent. His orders were, at all events. to attack the enemy, in case they should oppose him; so that every thing now promised the banished king a change of fortune.

These preparations on the side of France were soon known at the English court, and every precaution taken for a vigorous opposition. All the secret machinations of the banished king's adherents were discovered to the English ministry by spies; and by these they found that the tories were more faithful than even the whigs, who had placed king William on the throne. The duke of Marlborough, lord Godolphin, and even the princess Anne herself, were violently suspected of disaffection. Preparations, however, were made with great tranquillity and resolution, to resist the growing storm. Admiral Russel was ordered to put to sea with all possible expedition; and he soon appeared with 99 ships of the line, besides frigates and fire-ships. At the head of this formidable fleet he set sail for the coast of France; and, near La Hogue, he discovered the enemy, under Tourville, who prepared to give him battle. The engagement began between the two admirals with great fury, and the rest of the fleet soon followed their example. The battle lasted for ten hours; but at last victory declared on the side of numbers. The French fled for Conquet road, having lost four ships in the first day's action. The pursuit continued for two days following: three French ships of the line were destroyed the next day; and 18 more, which had taken refuge in the bay of La Hogue, were burnt by sir George Rooke. In this manner were all the French preparations frustrated; and so decisive was the blow, that from this time France seemed to relinquish all claims to the ocean.

Though the defeat of the French fleet at La Hogue had put king William out of all danger from any further attempts from that quarter, he by no means possessed his throne with any kind of tranquillity. The want of a common enemy produced dissentions among the people, and William began to find as much uneasiness from his parliament at home as from an enemy in the field. The uneasiness he felt from the refractory disposition of his subjects was not a little heightened by the death of his queen, who was taken off by the small-pox, on the 28th day of December, 1694. For some time he was under a sincere concern for her loss; but as politics had taken entire possession of his mind, he lost all other concerns in the greatness of his apprehensions for the balance of power and the fluctuating interests of Europe.

His chief motive for accepting the crown was to engage England more deeply in the concerns of Europe. His great object had been to humble the French, and all his politics consisted in forming alliances against them. On the other hand, many of the English had no such animosity against the French: and these, therefore, considered the interest of the nation as sacrificed to foreign connections; and complained that the

continental war fell most heavily on them, though they had the least interest in its success. These complaints were heard by William with the most phlegmatic indifference; he employed all his attention only on the balance of power, and the interests of Europe. He became unmindful of the cultivation of internal polity; and, as he formed alliances abroad, increased the influence of party at home. Patriotism began to be ridiculed as an ideal virtue; and the practice of bribing a majority in parliament became universal. The example of the great was caught up by the vulgar; principle, and even decency, were gradually banished; talents lay uncultivated, and the ignorant and profligate were received into favour.

The king, upon accepting the crown, was resolved to preserve as much of the prerogative as possible; and he sometimes exerted a branch of it which his predecessors had never chosen to make use of, viz the power of refusing his assent to some bills that had passed both houses. From this and other causes, there were perpetual bickerings between him and his parliament. At last William became fatigued with opposition. He admitted every restraint upon the prerogative in England, upon condition of being properly supplied with the means of humbling France. Provided the parliament supplied him with the means of executing this, he permitted them to rule the internal polity as they pleased. For the prosecution of the French war, the sums granted were indeed incredible. The nation, not contented with furnishing him such sums of money as they were capable of raising by the taxes of the year, mortgaged those taxes, and involved themselves in debts which they have never since been able to discharge.

The war with France continued during the greatest part of this king's reign; but at length the treaty of Ryswick, in 1697, put an end to those contentions in which England had engaged without policy, and came off at last without advantage. In the general pacification, her interests seemed entirely deserted; and for all the treasures she had sent to the continent, and all the blood which had been shed there, the only equivalent received was an acknowledgement of William's title from the king of France.

During the interval of peace, William was permitted by his parliament to maintain a standing army of 7,000 men, on condition that only natural born subjects should be included in the number. Dissentions between the two parties of whig and tory continued to prevail; and probably little real patriotism was felt by either. Peace was, however, on the point of being exchanged for war, when the reign was terminated, by the accidental death of the sovereign.

William was naturally of a very feeble constitution; and it was by this time almost quite exhausted, by a series of continual disquietude and action. He had endeavoured to repair his constitution, or at least to conceal its decays, by exercise and riding. On the 21st day of February, 1702, in riding to Hampton-court from Kensington, his horse fell under him; and he was thrown with such violence, that his collar-bone was fractured. His attendants conveyed him to the palace at Hampton-court, where the fracture was reduced; and in the evening he returned to Kensington in his coach. The

jolting of the carriage disunited the fracture; and the bones were again replaced, by Radloe, his physician. This, in a robust constitution, would have been a trifling misfortune; but to him it was fatal. For some time he appeared in a fair way of recovery; but falling asleep on his couch, he was seized with a shivering, which terminated in a fever and diarrhea, that soon became dangerous and desperate. Perceiving his end approaching, the objects of his former care lay next his heart; and the fate of Europe seemed to remove the sensations he might be supposed to feel for his own. The earl of Albemarle arriving from Holland, he conferred with him in private on the posture of affairs abroad. Two days after, having received the sacrament from archbishop Tennison, he expired on Sunday, March 8th, having lived 52 years, and reigned 13. He was in his person of a middle stature, a thin body, and a delicate constitution. He had an acquiline nose, sparkling eyes, a large forehead, and a grave solemn aspect. He left behind him the character of a great politician, though he had never been popular; and of a formidable general, though he had been seldom victorious. His deportment was grave, phlegmatic, and sullen; nor did he ever show any fire, but on the day of battle.

William was succeeded by the princess Anne, who had married George prince of Denmark. She ascended the throne in the 38th year of her age, to the general satisfaction of all parties. William had died at the eve of a war with France; and the present queen, who generally took the advice of her ministry on every important occasion, was now urged by opposite councils; a part of her ministry being inclined to war, and another to peace. At the head of those who opposed the war with France, was the earl of Rochester, lord lieutenant of Ireland, first cousin to the queen, and chief of the tory faction. At the head of the opposite party was the earl, afterwards duke, of Marlborough, and since so much renowned for his victories over the French. After giving their reasons for both their opinions, that of Marlborough preponderated: the queen resolved to declare war: and communicating her intentions to the house of commons, by whom it was approved, war was proclaimed accordingly. In this declaration of war, Louis was taxed with having taken possession of a great part of the Spanish dominions; with designing to invade the liberties of Europe; to obstruct the freedom of navigation and commerce; and with having offered an unpardonable insult to the queen and her throne, by acknowledging the title of the pretender; he was accused of attempting to unite the crown of Spain to his own dominions, by placing his grandson upon the throne of that kingdom, and thus of endeavouring to destroy the equality of power that subsisted among the states of Europe. This declaration of war on the part of England was seconded by similar declarations by the Dutch and Germans, all on the same day.

As the various scenes of this long and bloody contest were laid either on the continent of Europe, or in the remote settlements of the contending nations, we shall defer the narration of these events till we give the history of Louis XIV. who was the great object against whom the operations of the allied powers were directed. The principal effects which were produced in England, were the increase of national pride, by the frequent intelligence of splendid but unprofitable victories, and the inconveniences which

were continually experienced from the scarcity of hands in carrying on trade and manufactures.

While war was thus wasting the resources of this country, a negotiation was carried on to unite England and Scotland into one kingdom. This union had been attempted in the preceding reign. The terms proposed were those of a federal union, somewhat like that of the states of Holland. With this view the Scots were prevailed on to send 20 commissioners to London; who, with 23 on the part of England, met at Whitehall, in the month of October, 1702. Here they were honoured with a visit from the queen, in order to enliven their proceedings, and stimulate them to a more speedy dispatch of business. But the treaty was entirely broken off at this time, by the Scottish commissioners insisting, that the rights and privileges of their countrymen trading to Africa and the Indies, should be preserved and maintained. It was, however, resumed in the year 1706, when the commissioners again met, on the 16th of April, in the council-chamber of Whitehall.

The Scottish commissioners still proposed a federal union; but the English were determined on an incorporation, which should not afterwards be dissolved by a Scottish parliament. Nothing but this, they said, could settle a perfect and lasting friendship betwixt the two nations. The commissioners from Scotland, however, still continued to resist that article, which subjected their country to the same customs, excises, and regulations of trade as England; but the queen being persuaded to pay two visits in person to the commissioners, exerted herself so vigorously, that a majority was at last gained over; and all the rest yielded, though with reluctance, excepting Lockhart of Carnwath, who could not by any means be persuaded either to sign or seal the treaty.

The articles being fully prepared on the 22nd of July, they were presented next day to her majesty, by the lord-keeper, in the name of the English commissioners, at the same time that a sealed copy of the instrument was likewise delivered to the lord chancellor of Scotland. They were most graciously received, and the same day the queen dictated an order of council, threatening with prosecution such as should be concerned in any discourse or libel, or in laying wagers with regard to the union. Notwithstanding all this harmony, however, the treaty was strongly disapproved in Scotland. Not only were the people inflamed to the most violent pitch of disaffection, but the most bitter altercations took place in parliament. Almost every article of the treaty was the subject of a protest; addresses against it were presented to parliament by the convention of royal boroughs, the commissioners of the general assembly, the company trading to Africa and the Indies, as well as from shires, stewartries, boroughs, towns, and parishes. A coalition was formed between the presbyterians and cavaliers (the whigs and tories of Scotland), and to such a height did the resentment of the people arrive, that they chose officers, formed themselves into regiments, provided horses and ammunition, burnt the articles of union, justified their conduct by a public declaration, and resolved to take the rout to Edinburgh, and dissolve the parliament.

In the mean time, the privy council issued a proclamation against riots, command-

ing all persons to retire from the streets, whenever the drum should beat; ordering the guards to fire on all those who should disobey this command, and indemnifying them from all prosecution for maiming or slaying their fellow subjects. Even these precautions were insufficient. The duke of Queensbury, the chief promoter of the union, though guarded by double lines of horse and foot, was obliged to pass through the streets at full gallop, amidst the curses of the people, who pelted his guards, and even wounded some of his friends, who attended him in the coach. In opposition to all this fury, the friends of the union magnified the advantages that would accrue to the nation from that measure. They took off the resentment of the clergy, by causing an act to be inserted in the treaty, by which the presbyterian discipline was to be the only government of the church of Scotland, unalterable in all succeeding times, and a fundamental article of the union. Emissaries were employed to disunite the different Scottish parties from each other; their India company was flattered with the prospect of being indemnified for the losses they had sustained; and lastly, that party in the Scottish parliament which had hitherto continued fluctuating, was brought to espouse the side of the ministry. All opposition being now rendered ineffectual, the articles of treaty were ratified by parliament, with some trifling variations, on the 25th of March, 1707, when the duke of Queensbury finally dissolved that antient assembly, and Scotland ceased to be a separate independent kingdom.

The councils of the queen were governed, till 1710, by a whig ministry; but in that year an important revolution was effected, which put the tories into the possession of power. The two principal events which were brought about by the new leaders were, the deprivation of the duke of Marlborough of the command of the army, and the concluding a peace with Louis, in 1713. On the latter of these measures we shall not here attempt to decide, but the character of Marlborough was of that kind, which afforded ample scope to his enemies and his friends. By a continuance of conduct and success, almost unparalelled, he had gained to the allies a prodigious tract of country; from the beginning of the war, which had now continued nine years, he had perpetually advanced. and never retreated before his enemies, nor lost an advantage he had obtained over them. He most frequently gained the enemies' posts without fighting, but where he was obliged to attack, no fortifications were able to resist him. He had never besieged a city which he did not take, nor engaged in a battle in which he did not come off victorious. Notwithstanding, however, all these great qualities, he has been charged, and perhaps justly, with ingratitude, avarice, and want of principle. On his return from the campaign of 1711 he was accused of taking a bribe of 6000*l.* a-year from a Jew, who had contracted to supply the army with bread; and the queen thought proper to dismiss him from all his employments.

The history of the latter part of this reign consists entirely of the intrigues of the whigs and tories against each other. Whether the ministry at this time wished to alter the succession from the Hanoverian line, cannot now clearly be discovered; but it is certain that the whigs firmly believed it, and the tories but faintly denied the charge.

The violent dissension between these two parties, their unbounded licentiousness

cabals and tumults made the queen's situation very disagreeable; her health declined, and on the 28th of July, 1714, she fell into a lethargic insensibility. Notwithstanding all the medicines the physicians could prescribe, the distemper gained ground so fast, that next day they despaired of her life.

All the members of the privy council were now summoned to attend, and they began to provide for the security of the constitution. A letter was sent to the elector of Hanover, informing him of the queen's desperate situation, and desiring him to repair to Holland, where he would be attended by a British squadron, to convey him to England. At the same time, they dispatched instructions to the earl of Strafford, at the Hague, to desire the States General to be ready to perform the guarantee of the protestant succession. Precautions were taken to secure the sea-ports, and the command of the fleet was bestowed on the earl of Berkely, a professed whig.

On the 30th of July, the queen seemed to be somewhat relieved by the medicines which had been given her. She arose from her bed about eight in the morning, and walked a little. After some time, casting her eyes on a clock that stood in her chamber, she continued to gaze at it for some minutes. One of the ladies in waiting asked her what she saw there more than usual, to which the queen answered only by turning her eyes upon her with a dying look. She was soon after seized with an apoplectic fit, from which, however, she was somewhat recovered, by the assistance of Dr. Mead. She continued all night in a state of stupefaction. She exhibited some signs of life betwixt twelve and one the next day, but expired the following morning a little after seven o'clock, having lived 49 years, and reigned upwards of 12. She was the last of the unfortunate family of the Stuarts, whose government had been disturbed by frequent insurrections, and who have always been considered as being, with the exception of Mary II. strongly inclined to arbitrary power.

The names of Newton and Locke adorned the reign of William III. and he had a particular esteem for the latter, as he had also for Tillotson and Burnet, though he was far from being liberal to men of genius. Learning flourished, however, in this reign, merely by the excellency of the soil in which it had been planted. Our readers are in general acquainted with the improvements which learning and the polite arts received under the auspices of queen Anne, and which put the court on a footing with that of her great enemy, Louis XIV. Many of the great men who had figured in the reigns of the Stuarts and William were still alive, and in the full exercise of their faculties, when a new race sprung up in the republic of learning and the arts. Addison, Prior, Pope, Swift, lord Bolingbroke, lord Shaftesbury, Arbuthnot, Congreve, Steele, Rowe, and many other excellent writers made their appearance, and rendered the English as triumphant in literature as in war. Natural and moral philosophy kept pace with the polite arts, and even religious and political disputes contributed to the advancement of learning.

CHAPTER XV.

British Empire——*During the reigns of George I. and George II.*

QUEEN Anne had no sooner resigned her breath, than the privy council met, and three instruments were produced, by which the elector of Hanover appointed several of his known adherents to be added as lords justices to the seven great officers of the kingdom. Orders were also immediately issued out, for proclaiming George king of England, Scotland, and Ireland.

The regency appointed the earl of Dorset to carry him the intimation of his accession to the crown, and to attend him in his journey to England. They sent the general officers in whom they could confide to their posts, they reinforced the garrison of Portsmouth, and appointed the celebrated Mr. Addison secretary of state. No tumult, no commotion, rose against the accession of the new king; and this gives a strong proof, that if the tories really intended to exclude him, they never took any rational measures to accomplish their purpose.

The king first landed at Greenwich, where he was received by the duke of Northumberland and the lords of the regency. From the landing-place he walked to his house in the park, accompanied by a great number of persons of distinction. Having retired to his bed-chamber, he sent for such of the nobility as had distinguished themselves by their zeal for his succession. He expressed the greatest regard for the duke of Marlborough and other leaders of the whigs; but the tories found themselves excluded from the royal favour.

The general character of George appeared, at first view, to afford strong reasons why a reign of unusual tranquillity and national benefit might have been expected. He was frank and sincere, generous and grateful, just and humane. Though grave and sedate, he was not an enemy to mirth, or a stranger to the familiarity of private friendship. In the department of politics, he was not destitute of skill or knowledge. He was conversant in the arts of negotiation; he understood the interests of different states, and the intricacies of the Germanic system; and he was attentive to all the motions of the European powers. But, unfortunately for Great Britain, he rendered her strength and resources subservient to the benefit and preservation of his electoral dominions. For these, particularly for his more recent acquisitions, he felt a constant alarm; these were the foundations of his frequent and multifarious treaties; these he was more anxious to secure against his jealous enemies, than his kingdom against the attempts of the pretender; and when he equipped fleets and armies, he had an eye to the ultimate protection of his favourite possessions, under the pretence of resisting invasions for which the island was sufficiently prepared, and of guarding against insurrections which he did not dread.

In consequence of George's attachment to the whigs, the jacobites raised the most

terrible outcries; and an opportunity seems to have been offered to the pretender of striking a decisive blow. Instead of this, he continued a calm spectator on the continent, and only sent over his emissaries to disperse ineffectual manifestoes, and delude the unwary. Copies of a printed address were sent to the dukes of Shrewsbury, Marlborough, Argyle, and other noblemen of the first distinction, vindicating his right to the crown, and complaining of the injustice of his people. Yet, though he still complained of their conduct, he never took any step to correct his own, or remove that obstacle by which his father had lost his throne. He still continued to profess the truest regard to the catholic religion; and, instead of concealing his sentiments on that head, gloried in his principles.

The parliament being soon dissolved, a new one was assembled, in which there were a great majority of whigs returned, both from England and Scotland. On the first meeting of this assembly, violent measures were resolved upon against the late ministry. Part of them kept away from business. A committee was appointed to inspect all the papers relative to the late treaty, and to select such of them as might serve for grounds of accusation. The earl of Oxford was impeached of high treason, and sent to the Tower. The violence of the commons was answered with equal violence without doors. Tumults became every day more frequent, and every tumult served only to increase the severity of the legislature. They now passed an act, declaring that if any persons to the number of 12, unlawfully assembled, should continue together one hour after being required to disperse by a justice of peace, or other officer, and after hearing the act against riots read in public, they should be deemed guilty of felony, without benefit of clergy.

These vindictive proceedings excited the indignation of the people, especially of such as were connected with the jacobite faction. A rebellion commenced in Scotland, where to their other grievances, they joined that of the union, which they were taught to consider as an oppression. The earl of Mar, assembling 300 of his vassals in the Highlands, proclaimed the pretender at Castleton, and setting up his standard at Braemar, assumed the title of lieutenant-general of his majesty's forces. Two vessels arrived from France, with arms, ammunition, and a number of officers, together with assurances to the earl, that the pretender himself would shortly come over to head his own forces.

In consequence of this promise, the earl soon found himself at the head of 10,000 men, well armed and provided. He secured the pass of Tay at Perth, where his head quarters were established, and made himself master of the whole province of Fife, and all the sea-coast on that side of the Frith of Forth. He marched thence to Dumblain, as if he had intended to cross the Forth at Stirling bridge; but there he was informed that the duke of Argyle, who, on the occasion, was appointed commander in chief of all the forces in North Britain, was advancing against him from Stirling, with all his own clans, assisted by some troops from Ireland. Upon this he thought proper at first to retreat; but being soon after joined by some of the clans under the earl of Seaforth, and others under general Gordon, he resolved to face the enemy, and directed his march towards the south.

The duke of Argyle, apprised of his intentions, resolved to give him battle in the neighbourhood of Dumblaine, though his forces did not amount to half the number of the enemy. In the morning, therefore, he drew up his army, which did not exceed 3500 men, in order of battle, but he soon found himself greatly outflanked by the insurgents. The duke, therefore, perceiving that the earl of Mar made attempts to surround him, was obliged to alter his disposition, which on account of the scarcity of general officers, was not done so expeditiously as to be finished before the rebels began the attack. The left wing of the duke's army received the centre of the enemy, and supported the first charge without shrinking. It seemed even for a while victorious, and the earl of Clanronald was killed. But Glengary, who was second in command, undertook to inspire his intimidated forces with courage, and waving his bonnet, cried out several times, "Revenge!" This animated the rebel troops to such a degree, that they followed him close to the points of the enemy's bayonets, and got within their guard. A total rout began to ensue of that wing of the royal army, and general Wetham, their commander, flying full speed to Stirling, gave out that the rebels were completely victorious.

In the mean time, the duke of Argyle, who commanded in person on the right, attacked the left of the enemy, and drove them before him two miles, though they often faced about and attempted to rally. Having thus entirely broken that wing, and driven them over the river Allan, he returned back to the field of battle, where, to his great mortification, he found the enemy victorious, and patiently waiting for the assault. However, instead of renewing the engagement, both parties continued to gaze at each other, neither caring to begin the attack. In the evening, both parties drew off, and both claimed the victory. All the advantages of a victory, however, belonged to Argyle. He had interrupted the progress of the enemy, and in their circumstances, delay was defeat. In fact, the earl of Mar soon found his losses and disappointments increase. The castle of Inverness, of which he was in possession, was delivered up by lord Lovat, who had hitherto professed to act in the interest of the pretender. The marquis of Tullibardine forsook the earl, in order to defend his own part of the country; and many of the clans, seeing no likelihood of coming to a second engagement, returned quietly home.

In the mean time, the rebellion was still more unsuccessfully prosecuted in England. From the time the pretender had undertaken this wild project in Paris, in which the duke of Ormond and lord Bolingbroke were engaged, lord Stair, the English ambassador, had penetrated all his designs, and sent faithful accounts of all his measures and of all his adherents, to the ministry at home. Upon the first rumour, therefore of an insurrection, they imprisoned several lords and gentlemen of whom they had a suspicion. But these precautions were not able to stop the insurrection in the western counties, where it was already begun. The preparations of the rebels were, however, weak and ill conducted; every measure was betrayed to government as soon as projected, and many revolts were repressed in the very outset.

The university of Oxford partook of the spirit of disaffection; and the health of king James was a common toast in the academic parties of convivial indulgence. Major

general Pepper being ordered to seize some well known jacobites, who had retired to that town, entered it with a body of troops, and sending for the vice-chancellor and mayor, desired their assistance in the discovery and apprehension of malcontents. He also intimated, that if any of the students or of the citizens should tumultuously assemble in the streets, beyond the number allowed by the late act against riots, he would certainly fire upon them.

The insurrection in the northern counties came to greater maturity. In the month of October, 1715 the earl of Derwentwater and Mr. Forster took the field with a body of horse, and being joined by some gentlemen from the borders of Scotland, proclaimed the pretender. Their first attempt was to seize upon Newcastle, where they had many friends; but finding the gates shut against them, they retired to Hexham. To oppose these, general Carpenter was detached by government with a body of 900 men, and an engagement was hourly expected. The rebels had two methods by which they might have conducted themselves with prudence and safety. The one was to march directly into the western parts of Scotland, and there join general Gordon, who commanded a strong body of Highlanders. The other was to cross the Tweed, and boldly to attack general Carpenter, whose forces did not exceed their own. From the infatuation attendant on the measures of that party, neither of these counsels was pursued. They took the rout to Jedburgh, where they hoped to leave Carpenter on one side, and penetrate into England by the western border. This was the effectual means to cut themselves off either from a retreat or assistance. A party of Highlanders, who had joined them by this time, refused to accompany them in such a desperate incursion, and one half of them actually returned to their own country. At Brampton, Mr. Forster opened his commission of general, which had been sent him by the earl of Mar, and proclaimed the pretender. They continued their march to Penrith, where the body of the militia, that had assembled to oppose them, fled at their appearance. From Penrith they proceeded, by way of Kendal and Lancaster, to Preston, of which they took possession without any resistance. But here was an end to their prosperity; for general Wills, at the head of 7,000 men, came up to attack them; and from his activity there was no escape. They now, therefore, began to raise barricadoes about the town, and to put the place in a posture of defence, repulsing the first attacks of the royal army. Next day, however, Wills was reinforced by Carpenter, and the town was invested on all sides.

In this deplorable situation, Forster offered to capitulate; but Wills replied that he would not treat with rebels; and that the only favour they had to expect, was to be spared from immediate slaughter. Submitting to these hard terms, they laid down their arms, and were put under a strong guard. All the noblemen and leaders were secured, and a few of their officers tried for deserting the royal army, and shot by order of a court martial. The common men were imprisoned at Chester and Liverpool; the noblemen and considerable officers were sent to London, and led through the streets pinioned and bound together, to intimidate their party.

Though by this time the pretender might easily have seen that his affairs were desperate, yet, with his usual infatuation, he resolved to hazard his person among his friends

in Scotland, at a time when such a measure was too late for success. Passing, therefore, through France in disguise, and embarking in a small vessel at Dunkirk, he arrived, after a voyage of a few days, on the coasts of Scotland, with only six gentlemen in his train. He passed unknown through Aberdeen to Feteresso, where he was met by the earl of Mar and about 30 noblemen and gentlemen of the first quality. There he was solemnly proclaimed, and his declaration, dated at Comercy, was printed and dispersed. He went from thence to Dundee, where he made a public entry; and in two days more he arrived at Scone, where he intended to have had the ceremony of his coronation performed. He ordered thanksgivings to be made for his safe arrival; he enjoined the ministers to pray for him in their churches; and, without the smallest share of power, went through the parade of royalty. Having spent some time in unimportant parade, he resolved to abandon the enterprize.

He made a speech to his grand-council, in which he informed them of his want of money, arms, and ammunition; and therefore deplored that he was obliged to leave them. He once more embarked on board a small French ship that lay in the harbour of Montrose, accompanied with several lords his adherents, and in five days arrived at Graveline.

General Gordon, who was left commander in chief of the forces, with the assistance of earl Mateschal, proceeded at their head to Aberdeen, where he secured three vessels to sail northward, which took on board such persons as intended to escape to the continent. He then continued his march through the Highlands, and quietly dismissed his forces as he went forward. The retreat was made with such expedition, that the duke of Argyle, with all his activity, could never overtake his rear.

The rebellion being ended, the law was put in force with all its terror; and the prisons of London were crowded with those deluded persons, whom the ministry seemed resolved not to pardon. The earl of Derwentwater and lord Kenmuir were beheaded at the scaffold on Tower-hill, and submitted to their fate with the calmest composure. The earl of Nithsdale had the happiness to escape, in woman's clothes, that were brought him by his mother, the night before the time appointed for his execution.

An act of parliament was next made for trying the private prisoners in London, and not in Lancashire, where they were taken in arms. This was considered by some of the best lawyers, as an alteration of the antient constitution of the kingdom, by which it was supposed that every prisoner should be tried in the place where his offence was committed; as a jury of neighbours would be best qualified to enter into the nature of the crime

In the beginning of April, commissioners for trying the rebels met in the court of common pleas, when the bills were found against Mr. Forster, M. Mackintosh, and 20 of their confederates. Forster escaped from Newgate, and reached the continent in safety: the rest pleaded not guilty. Pitts, the keeper of Newgate, being suspected of having connived at Forster's escape, was tried for his life, but acquitted. After this, Mackintosh and several other prisoners broke from Newgate, after having mastered the keeper and turnkey, and disarmed the sentinel. The court proceeded to the trial of those that remained; four or five were hanged, drawn, and quartered, at Tyburn. The judges appointed

to try the rebels at Liverpool, found a considerable number of them guilty of high treason. Twenty-two were executed at Manchester and Preston, and about 1000 were transported to North America.

The year 1721 was distinguished by the commencement of the ruinous South Sea scheme. To explain this as concisely as possible, it must be observed, that ever since the revolution under king William, the government not having sufficient supplies granted by parliament, or what was granted requiring time to be collected, they were obliged to borrow money from several different companies of merchants, and among the rest from that company which traded to the South Sea. In the year 1716, the government was indebted to this company about nine millions and a half of money, for which they granted at the rate of six per cent. interest. As this company was not the only one to which government was indebted, sir Robert Walpole formed a design of lessening the national debts, by giving the several companies an alternative, either of accepting an interest of five per cent. or of being paid the principal. The South-Sea company, having augmented their loan to ten millions, were contented to receive 500,000*l.* annually as interest, instead of 600,000*l.* which they had usually received. In the same manner the governors and company of the bank, and other companies, were content to receive a diminished annual interest for their respective loans, all which greatly lessened the debts of the nation.

In this situation of things, one Blount, a scrivener, proposed to the ministry, in the name of the South Sea company, to buy up all the debts of the different companies, and thus for the South Sea company to become the sole creditors of the state. The terms he offered to government were extremely advantageous. The South Sea company was to redeem the debts of the nation out of the hands of the private proprietors, who were creditors to the government, on whatever terms they could agree on; and for the interest of this money, which they had thus redeemed and taken into their own hands, they would be content to be allowed by government five per cent. for six years; after which the interest should be reduced to four per cent. and should be at any time redeemable by parliament. For these purposes, a bill passed both houses. Now came the part of the scheme which was big with fraud and ruin. As the directors of the South Sea company could not of themselves be supposed to possess so much money as was requisite to buy up the debts of the nation, they were empowered to raise it by opening a subscription to an imaginary scheme for trading in the South Seas; from which commerce immense advantages were promised, and still greater expected by the rapacious credulity of the people. All the creditors of government, therefore, were invited to come in and exchange their securities; viz. the security of government for that of the South Sea company.

The director's books were no sooner opened for the first subscription, than crowds came to make the exchange of government stock for South Sea stock. The delusion was artfully continued and spread. Subscriptions in a few days sold for double the price they had been bought at. The scheme succeeded even beyond the projector's hopes; and the whole nation was infected with a spirit of avaricious enterprize. The infatuation

prevailed; the stock increased to a surprising degree, even to near ten times the value it was first bought for.

After a few months, however, the people waked from their dream of riches, and found that all the advantages they expected were merely imaginary; while thousands of families were involved in one common ruin. Many of the directors, by whose arts the people were taught to expect such great benefit from a traffic to the South seas, had amassed considerable fortunes by the credulity of the public. It was some consolation, however, to the people, to find the parliament sharing in the general indignation, and resolving to strip these unjust plunderers of their possessions. Orders were first given to remove all the directors of the South Sea company from their seats in parliament, and the places they possessed under government. The principal delinquents were punished by a forfeiture of all such possessions and estates as they had acquired during the continuance of the popular frenzy.

The next care was to redress the sufferers. Several just and useful resolutions were taken by parliament; and a bill was speedily prepared for repairing the late sufferings, as far as the inspection of the legislature could extend. Of the profit arising from the South Sea scheme, the sum of 7,000,000*l.* was given back to the original proprietors; several additions were also made to their dividends, out of what was possessed by the company in their own right; and the remaining capital stock was also divided among the old proprietors, at the rate of 33 per cent. In the mean time, petitions from all parts of the kingdom were presented to the house, demanding justice; and the whole nation seemed exasperated to the highest degree. Public credit sustained a terrible shock. Some principal members of the ministry were deeply concerned in these fraudulent transactions. Tha bank was drawn upon faster than it could supply; and nothing was heard but the ravings of disappointment, and the cries of despair. By degrees, however, the effects of this terrible calamity wore off, and matters returned to their former tranquillity.

The other events which distinguish the reign of George I. may be related in few words. The parliament took occasion, from the rebellion in Scotland and the north of England, to prolong their own duration, and that of all succeeding parliaments, from three to seven years. A bill was passed, which deprived the Irish lords of all right of final jurisdiction, and rendered them subservient to the British legislature. The quarrels of this prince with Sweden and Spain are intended to be noticed in another part of this work.

Soon after the breaking up of the parliament, in the year 1727, the king resolved to visit his electoral dominions. Having appointed a regency, he embarked for Holland, and lodged, after his landing, at a little town called Voet. Next day he proceeded on his journey, and in two days more, between ten and eleven at night, arrived at Delden, to all appearance in perfect health. He supped there very heartily, and continued his journey early next morning; but between eight and nine ordered his coach to stop. It being perceived that one of his hands lay motionless, Monsieur Fabrice, who had formerly been servant to the king of Sweden, and who now attended king George, attempted to quicken the circulation, by chafing it between his own. As this had no effect,

the surgeon, who followed on horseback, was called, and he rubbed it with spirits. Soon after the king's tongue began to swell, and he had just strength enough to bid them hasten to Osnaburgh. Then falling insensibly in Fabrice's arms, he never recovered, but expired at eleven o'clock the next morning, in the 68th year of his age, and 13th of his reign. His body was conveyed to Hanover, and there interred among his ancestors.

On the accession of George II. the two great parties into which the nation had been so long divided, again changed their names, and were now called the court and country parties. Throughout the greatest part of this reign, there seems to have been two objects of controversy, which were debated every session, and tried the strength of the opponents. The government, on the accession of George II. owed more than thirty millions of money; and though there was a long continuance of profound peace, yet this sum was found constantly increasing. Demands for new supplies were made every session of parliament, either for the purpose of securing friends on the continent, or guarding the nation against internal conspiracies, or of enabling the ministry to act vigorously in conjunction with the powers in alliance. It was vainly alledged that these expences were incurred without prudence or necessity, and that the increase of the national debt, by multiplying and increasing taxes, would at last become an intolerable burden to the poor. These arguments were offered, canvassed, and rejected; the court was constantly victorious, and every demand was granted with cheerfulness and profusion.

The earlier part of the reign of George II. was marked by few events of considerable importance. Sir Robert Walpole, who was at that time prime minister, deserves our blame for his attachment to the system of corruption; but merits our commendation for his avoiding, as long as possible, to plunge the nation into a war with Spain. The clamours of the opposition, however, at length prevailed; and the Spanish war, which commenced in 1739, was succeeded, the next year, by hostilities with France, in behalf of the queen of Hungary. In this war was fought the battle of Dettingen, at which the king himself was present; and the French were defeated, with the loss of about 5000 men.

Though the English were victorious in this engagement, the French were very little disconcerted by it. They opposed prince Charles, and interrupted his attempts to pass the Rhine. In Italy they also gained some advantages; but their chief hopes were placed on an intended invasion of England. From the violence of parliamentary disputes in England, France had been persuaded that the country was ripe for a revolution, and only wanted the presence of the pretender to bring about a change. An invasion was therefore actually projected. The troops destined for the expedition amounted to 15,000; and preparations were made for embarking them at Dunkirk, and some of the ports nearest to England, under the eye of the young pretender. The duke de Roquefeuille, with 29 ships of the line, was to see them safely landed on the opposite shore, and the famous count Saxe was to command them when landed. But the whole project was disconcerted by the appearance of sir John Norris, who, with a superior fleet, made up to attack them. The French fleet was obliged to put back; a very hard

gale of wind damaged their transports beyond redress; and the French, now frustrated in their scheme of a sudden descent, thought fit openly to declare war.

The national joy for sir John Norris's success, however, was soon damped by the miscarriage of admirals Matthews and Lestock; who, through a misunderstanding between themselves, suffered a French fleet of 34 sail to escape them near Toulon. In the Netherlands, the British arms were attended with still worse success. The French had there assembled an army of 120,000 men, commanded by count Saxe, natural son to the late king of Poland, an officer of great experience. The English were headed by the duke of Cumberland, who had an inferior army, and was much inferior in the knowledge of war to the French general. Count Saxe, therefore, carried all before him. In 1742, he besieged Fribourg, and in the beginning of the campaign, 1744, invested the strong city of Tournay. To save this place, if possible, the allies resolved to hazard an engagement; and on this ensued the bloody battle of Fontenoy, in which the allies left on the field of battle near 12,000 men, and the French almost an equal number. In consequence of this victory, Tournay was soon after taken by the French.

To balance the bad success, however, admirals Rowley and Warran had retrieved the honour of the British flag, and made several rich captures at sea. The fortress of Louisbourg, a place of great consequence to the British commerce, surrendered to general Pepperell; while, a short time after, two French East India ships, and a Spanish ship from Peru, laden with treasure, put into the harbour, supposing it still their own, and were taken.

During this gleam of returning success, Charles Edward, the son of the old pretender to the British crown, resolved to make an attempt to recover what he called his right. Being furnished with some money from France, he embarked for Scotland, aboard a small frigate, accompanied by the marquis of Tullibardine, sir Thomas Sheridan, and some others; and, for the conquest of the whole British empire, only brought with him seven officers and arms for 2000 men.

Fortune, however, seemed no way more favourable to this attempt than to others similar to it. His convoy, a ship of 60 guns, was so disabled in an engagement with an English man of war, that it was obliged to return to Brest, while he continued his course to the western parts of Scotland. On the 27th day of July, 1745, he landed on the coast of Lochaber, and was in a little time joined by the Highlanders, to the number of 1500. The ministry at first could scarcely be induced to credit his arrival; but when they could no longer doubt of it, they sent sir John Cope, with a small body of forces, to oppose his progress.

By this time the young adventurer was arrived at Perth, where he performed the ceremony of proclaiming his father king of Great Britain. From thence, descending towards Edinburgh, and his forces continually increasing, he entered the capital without opposition; but was unable, from want of cannon, to reduce the castle. Here he again proclaimed his father; and promised to dissolve the union, which was considered as one of the national grievances. In the mean time, sir John Cope being reinforced by two regiments of dragoons, resolved to give the enemy battle. The rebels attacked

him near Preston-pans, and in a few minutes put him and his troops to flight, with the loss of 500 men.

This victory gave the rebels great influence; and had the pretender marched directly to England, the consequence might have been fatal to freedom. But he was amused by the promise of succours, which never came; and thus induced to remain in Edinburgh till the season for action was lost. He was joined, however, by the earl of Kilmarnock, lord Balmerino, lords Cromarty, Elcho, Ogilvy, Pitsligo, and the eldest son of lord Lovat, who, with their vassals, considerably increased his army. Lord Lovat himself, so remarkable for his treachery, was an enthusiast in favour of the pretender, but was unwilling to act openly, for fear of the ministry.

But while Charles was thus trifling away his time at Edinburgh, the British ministry were taking effectual methods to oppose him; 6000 Dutch troops, that had come over to the assistance of the crown, were dispatched northwards, under the command of general Wade; but, as it was then said, these could lend no assistance, being prisoners of France upon their parole, and under engagement not to oppose that power for a year. But, however this be, the duke of Cumberland soon after arrived from Flanders, and was followed by another detachment of dragoons and infantry, well disciplined and inured to action; and, besides these, volunteers offered themselves in every part of the kingdom.

At last, Charles resolved upon an irruption into England. He entered that country by the western border, and took the town of Carlisle; after which he continued his march southwards, having received assurances that a considerable body of forces would be landed on the southern coast, to make a diversion in his favour. He established his head quarters at Manchester, where he was joined by about 200 English, formed into a regiment, under the command of colonel Townley. From thence he pursued his march to Derby, intending to go, by the way of Chester, into Wales, where he hoped to be joined by a great number of malcontents; but in this he was prevented by the factions among his followers.

Being now advanced within 100 miles of London, that capital was in the utmost consternation; and had he proceeded with the same expedition he had hitherto used, perhaps he might have made himself master of it. But he was rendered incapable of pursuing this, or any other rational plan, by the discontents which began to prevail in his army. In fact, the young pretender was but the nominal leader of his forces; his generals, the Highland chiefs, being averse to subordination, and ignorant of command. They were now unanimous in their resolution to return to their own country, and Charles was forced to comply. They retreated to Carlisle without any loss; and from thence, crossing the river Eden and Solway, entered Scotland. They next marched to Glasgow, which was laid under severe contributions. From thence advancing to Stirling, they were joined by lord Lewis Gordon, at the head of some forces which had been assembled in his absence.

Other clans likewise came in, and from some supplies of money received from Spain, and some skirmishes with the royalists, in which he was victorious, the pretender's affairs began to wear a more promising aspect. Being joined by lord Drummond, he invested

the castle of Stirling, in the siege of which much time was consumed to no purpose. General Hawley, who commanded a considerable body of forces near Edinburgh, undertook to raise this siege, and advanced towards the rebel army as far as Falkirk. After two days spent in mutually examining each others strength, an engagement ensued, in which the king's forces were entirely defeated, with the loss of their tents and artillery.

This was the end of all the triumphs of the rebel army. The duke of Cumberland having arrived, was put at the head of the troops at Edinburgh, which amounted to about 14,000 men. With these he advanced to Aberdeen, where he was joined by several of the nobility attached to the house of Hanover; the enemy, in the mean time, retreating before him. He next advanced to the banks of the Spey, a deep and rapid river, where the rebels might have disputed his passage; but their contentions with one another were now risen to such a height, that they could scarce agree in any thing. At last they resolved to wait their pursuers. An engagement ensued at Colloden, near Inverness; in which the rebels were defeated with great slaughter, and a final period was put to all the hopes of the young adventurer. The conquerors behaved with the greatest cruelty; refusing quarter to the wounded, the unarmed, and the defenceless. Some were slain who had only been spectators of the combat, and soldiers were seen to anticipate the base employment of the executioner. The duke, immediately after the action, ordered 36 deserters to be executed: the conquerors spread terror wherever they came; and, after a short space, the whole country round was one dreadful scene of plunder, slaughter, and desolation.

Immediately after the engagement, the young pretender fled away with a captain of Fitzjames's cavalry; and when their horses were fatigued, they both alighted, and separately sought for safety. There is a striking resemblance between the adventures of Charles II. after the battle of Worcester, and those of the young pretender after the battle of Colloden. For some days he wandered in the country. Sometimes he found refuge in caves and cottages, without any attendants at all. Sometimes he lay in forests with one or two companions of his distress, continually pursued by the troops of the conqueror, there being a reward of 30,000*l.* offered for taking him either dead or alive. In the course of his adventures, he had occasion to trust his life to the fidelity of above 50 individuals; not one of whom could be prevailed upon, by so great a reward as was offered, to betray him whom they looked upon to be their king's son.

For six months the unfortunate Charles continued to wander in the frightful wilds of Glengary, often hemmed round by his pursuers, but still rescued by some providential accident from the impending danger. At length, a privateer of St. Maloes, hired by his adherents, arrived at Lochranach, in which he embarked in the most wretched attire. He was clad in a coat of black frize, thread-bare; over which was a common Highland plaid, girt round him by a belt, from which hung a pistol and dagger. He had not been shifted for many weeks; his eyes were hollow, his visage wan, and his constitution greatly impaired by famine and fatigue. He was accompanied by Sullivan and Sheridan, two Irish adherents, who had shared all his calamaties; together with Cameron of Lochiel, his brother, and a few other exiles. They set sail for France;

and after having been chased by two English men of war, arrived in safety at a place called Roscau, near Morlaix, in Bretagne.

While the pretender was thus pursued, the scaffolds and gibbets were preparing for his adherents. Seventeen officers were hanged, drawn, and quartered, at Kennington common, in the neighbourhood of London; nine were executed in the same manner at Carlisle, and 11 at York. A few obtained pardons, and a considerable number of the common men were transported to America. The earls of Kilmarnoch and Cromarty, and lord Balmerino, were tried and found guilty of high treason. Cromarty was pardoned; but Kilmarnoch and Balmerino were executed; as was also Mr. Radcliffe, brother to the late earl of Derwentwater, who was sentenced upon a former conviction. Lord Lovat was tried, and suffered some time after.

Immediately after the suppression of the rebellion, the legislature undertook to establish several regulations in Scotland, which were equally conducive to the happiness of the people and the tranquillity of the united kingdoms. The Highlanders had, till that time, continued to wear the military dress of their ancestors, and never went without arms. In consequence of this, they considered themselves as a body of people distinct from the rest of the nation, and were ready, upon the shortest notice, to second the insurrections of their chiefs. Their habits were now reformed by an act of the legislature, and they were compelled to wear clothes of the common fashion. But what contributed still more to their real felicity, was the abolition of that hereditary jurisdiction, which their chieftains exerted over them. The power of their chieftains was totally destroyed, and every subject in that part of the kingdom was granted a participation in the common liberty.

Concerning the succeeding events of the war, it may be remarked in general, that the French were successful on land, and the English at sea. Both parties, however, became soon tired of hostilities; and in the year 1748, a pacification was concluded, in terms which afforded very little advantage to either, and were rather disgraceful to this country. No mention was made of the right which the Spaniards claimed to search British vessels in the American seas, though this had been the original cause of the quarrel; nor were the limits of the possessions of the contracting powers on the western continent ascertained with the requisite precision.

In the year 175. died Frederick, prince of Wales, whose good-nature had rendered him popular, and on whose accession to the throne, those who opposed the administration grounded all their hopes of success.

The continuance of real peace was limited to a few months; for, in the year 1749, hostilities began in America, occasioned partly by the new settlement of the English at Acadia, now called Nova Scotia, and partly by the design of the French to extend a chain of forts on the back of the English colonies, from Canada to Louisiania. In 1756, war was more openly commenced; and the English having obtained some advantage by sea, the enemy determined either to strike a decisive blow, or at least to spread the alarm of an intended invasion. Several bodies of their troops were marched down to the coasts that lay opposite to the British shores; these were instructed in the art of embarking and relanding from flat-bottomed boats, which were made in great

numbers for that expedition. The number of men amounted to about 50,000, but all discovered the utmost reluctance to the undertaking. The ministry were greatly alarmed. They applied to the Dutch for 6000 men, which they were by treaty obliged to furnish, in case of an invasion. This supply was refused; the Dutch alledging that the treaty was to send the troops in the case of an actual, and not of a threatened, invasion. This excuse was accepted, and 10,000 Hessians and Hanoverians were brought over.

The discontent which this measure excited, and the danger of invasion to which this nation appeared to be exposed, occasioned those acts of parliament for the better regulation of the militia, which have since been attended with so many important consequences. The vigorous administration of William Pitt, who came into power in the year 1757, had a strong tendency to promote the success of the military expeditions which were about this time carried into execution. The French were attacked on every side, and sustained great losses in all the four quarters of the world. In the midst, however, of the national exultation, the sovereign, George II. was removed from this state of existence. On the 25th of October, he rose at his usual hour; and as the weather was fine, he would take a walk in the gardens of Kensington, where he then resided. In a few minutes after his return, being left alone, he was heard to fall down on the floor. The noise of this bringing his attendants into the room, they lifted him into bed, where he desired, with a faint voice, that the princess Amelia might be sent for; but before she could reach the apartment he expired, in the 77th year of his age, and the 33rd of his reign. An attempt was made to bleed him, but without effect, and the surgeons, upon opening him, discovered that the right ventricle of his heart was ruptured, and a great quantity of blood discharged through the aperture.

To describe with minuteness the manners of a period which is so recent, must appear superfluous; but it may not be improper to mention two or three of the most celebrated literary characters it produced. Such were Pope, whose pieces display less vigour and variety than those of Dryden, but are more elegant and correct. Gay, who not only distinguished himself as a fabulist, but gained great reputation by his Beggar's Opera. Dr. Young, who had wit as a satirist, and whose Night Thoughts will long be read with pleasure and profit. Thomson, whose beautiful poem on the seasons is characterised by elegant and accurate description. Arbuthnot and Mead, distinguished as well by their general information, as by their skill in the medical profession.

CHAPTER XVI.

British Empire——*From the accession of George III.*

KING George III. ascended the throne amidst the greatest successes both by sea and land. In his first speech to the parliament, he declared his resolution to carry on the war with vigour, till it might be brought to a termination safe and honourable to the nation and the allies. The direction of affairs was possessed by William Pitt, the most popular minister that had appeared for ages; a minister who gained so much of the confidence of the people, that his boldest designs were supposed to be the result of prudent deliberation, and his most oppressive taxes were paid without regret. In such circumstances it was evident, that if any change of men or measures took place, it must be attended with a correspondent change in a great part of the nation, from the most fervent loyalty to a state of disaffection and disgust. It was not long before all this was realised.

Mr. Pitt having strongly recommended a war with Spain, and that proposal not being agreed to by the other members of the privy council, resigned his employment of secretary of state in 1761. He was created earl of Chatham, and had a pension of 3000*l.* a-year settled upon him for three lives. The earl of Bute, a Scottish nobleman, reputed of high tory principles, had now an uncontrolled sway in the cabinet. For the more effectual preservation of his power, he was desirous of accelerating a peace; and as the French and Spaniards were by this time weary of war, a treaty was concluded at Paris on the 10th of February 1763. Though considerable advantages were obtained by Britain, the terms were by many considered as too favourable, and this, added to the popularity of the late prime minister, and the opposite character of his successor, had a tendency to increase that spirit of disaffection, which at this time materially affected the peace of the nation.

The affair of Mr. Wilkes is still well remembered, and therefore needs not to be very minutely described. Mr. Wilkes, member of parliament for Aylesbury, and colonel of the Buckinghamshire militia, was guilty of two very different offences, which drew down upon him the vengeance of government. On account of a periodical publication, of considerable merit, called the North Britain, he was arrested by a general warrant, and committed to the Tower. This commitment being afterward declared illegal, he was discharged from his confinement. He even obtained 1000*l.* damages, and full costs of suit, of the under secretary of state, for seizing his papers. Though he was deprived of the command of the Buckinghamshire militia, expelled the house of commons for offences of a moral kind (his writing the Essay on Woman, an obscene, blasphemous parody on Pope's Essay on man), though declared an outlaw, in consequence of his retiring to France, and, after his return, successively rejected by the house of

commons as a member, he obtained all the advantages his ambition could prompt him to desire; he was loaded with city honours, and found wealth following in their train; and at length procured from a succeeding parliament, a censure of the proceedings of their predecessors respecting the Middlesex election, as being subversive of the rights of elections.

The history of the American war, and of the various events with which it was connected, will be given in that part of our work which describes the American continent.

The catholic inhabitants of these realms had long laboured under cruel disadvantages, from which the legislature, in 1781, were determined to relieve them. Some remains however, of the spirit of persecution, and an apprehension of the awful effects which might follow, if that party, who had formerly kindled so many fires in Smithfield, should ever again prevail, induced many individuals to look on the penal statutes as a necessary bar to confine them within the bounds of submission.

Thus a society was formed in London, which took the title of the Protestant Association of which lord George Gordon was elected president; and it now prepared to act in a decisive manner against the resolutions of the legislature.

On the 29th day of May, 1780, the associators held a meeting, in order to settle in what manner they should present a petition to the house of commons against the repeal of the penal statutes. A long speech was made on this occasion by their president, who represented the Roman persuasion as gaining ground rapidly in this country; that the only method of stopping its progress, was to go up with a spirited remonstrance to their representatives, and to tell them, in plain and resolute terms, that they were determined to preserve their religious freedom with their lives, &c.

This harangue being received with the loudest applause, he moved, that the whole body of the association should meet on the 2nd day of June, in St. George's Fields, at ten in the morning, to accompany him to the house of commons on the delivery of the petition. This being unanimously assented to, he informed them, that if he found himself attended by fewer than 20,000, he would not present the petition. He then directed they should form themselves into four divisions; the first, second, and third, to consist of those who belonged to the city, Westminster, and Southwark; the fourth of the Scotch residents in London. They were, by way of distinction, to wear blue cockades in their hats.

Three days previous to the presentation of the petition, he gave notice of it to the house, and acquainted it with the manner in which it was to be presented; but this was received with as much indifference and unconcern as all his former intimations.

On the 2nd day of June, according to appointment, about 50 or 60,000 men assembled in St. George's Fields. They drew up in four separate divisions, as had been agreed, and proceeded to the parliament house, with lord George Gordon at their head. An immense roll of parchment was carried before them, containing the names of those who had signed the petition.

On their way to the house, they behaved with great order and decency; but as soon

as they were arrived, great disturbances took place. The rioters began by compelling all the members, of both houses, they met with, to put blue cockades in their hats, and call out, "No Popery." They forced some to take an oath that they would vote for the repeal of the popery act, as they styled it. They treated others with great indignity, posting themselves in all the avenues to both houses; the doors of which they twice endeavoured to break open.

Their rage was chiefly directed against the members of the house of lords; several of whom narrowly escaped with their lives.

During these disturbances, lord George Gordon moved for leave to bring up the petition. This was readily granted; but when he proposed it should be taken into immediate consideration, it was strenuously opposed by almost the whole house. Enraged at this opposition, he came out several times to the people during the debates, acquainting them how averse the house appeared to grant their petition, and naming particularly those who had spoken against it,

Several members of the house expostulated with him in the warmest terms on his unjustifiable conduct; and one of his relations, colonel Gordon, threatened to run him through the moment any of the rioters should force their entrance into the house. It was some hours before the house could carry on its deliberations with any regularity, which was not done till the members were relieved by the arrival of a party of the guards.

Order being restored, the business of the petition was resumed; when lord George Gordon told them it had been signed by near 120,000 British protestant subjects. He therefore insisted that the petition should be considered without delay. But, notwithstanding the dangers with which they were menaced, and the proof which the mover of the petition had given that no means should be left unemployed to compel them to grant it, the commons continued immoveable in their determination. Of 200 members then present in the house, six only voted for the immediate consideration of the petition.

In the mean time, the mob had dispersed itself into various parts of the metropolis, where they demolished two Romish chapels belonging to foreign ministers; and openly vented the most terrible menaces against all people of that persuasion.

On the 4th day of June they assembled in great numbers in the eastern parts of London; and attacked the chapels and houses of the Roman catholics in that quarter, stripping them of their contents, which they threw into the street, and committed to the flames.

They renewed their outrages on the following day, destroying several Romish chapels, and demolishing the house of sir George Saville, in resentment of his having brought into parliament the bill in favour of the Roman catholics.

Next day both houses met as usual; but finding that no business could be done, they adjourned to the 19th.

During this day and the following, which were the 6th and 7th of June, the rioters were absolute masters of the metropolis and its environs.

Some of those who had been concerned in the demolition of the chapels belonging to

foreign ministers, having been seized and sent to Newgate, the mob collected before that prison, and demanded their immediate release. On being refused, they proceeded to throw fire-brands and all manner of combustibles into the keeper's house; which unhappily communicated the fire to the whole building; so that this immense pile was soon in flames. In this scene of confusion, the prisoners were all released. They amounted to about 300; among whom several were under sentence of death. They set fire, in the same manner, to the king's bench and Fleet prison, and to a number of houses belonging to Roman catholics. The terror occasioned by these incendiaries was such, that most people hung out of their windows pieces of blue silk, which was the colour assumed by the rioters; and chalked on their doors and shutters these words, "No Popery," by way of signifying they were friendly to their cause.

The night of the 7th of June concluded these horrors. No less than 36 different conflagrations were counted at the same time. The bank had been threatened, and was twice assailed: but, happily, was too well guarded for their attempts. In the evening large bodies of troops arrived from all parts, and came in time to put a stop to the progress of the rioters. They fell upon them every where, and many were slain and wounded, besides the numbers that perished through intoxication.

It was not until the afternoon of the 8th, that people began to recover from their consternation. During great part of the day, the disorders of the preceding night had created so terrible an alarm, that the shops were almost universally shut up over all London. The melancholy effects of misguided zeal were not, however, confined solely to London. The outrageous disposition of the populace was preparing to act the like horrid scenes in other parts of England. The mob rose in Hull, Bristol, and Bath; but, through the timely interposition of the magistracy, these places were saved from their fury.

On the subsiding of this violent and unexpected commotion, it was thought proper to secure lord George Gordon. He was arrested, and committed close prisoner to the Tower, after having undergone a long examination before the principal lords of the council.

On the 19th day of June, both houses met again, according to adjournment. A speech was made on this occasion from the throne, acquainting them with the measures that had been taken in consequence of the disturbances, and assuring them of the utmost readiness to concur in whatever could contribute to the safety and maintenance of the laws and liberties of the people. The speech was highly approved; but the conduct of administration was severely censured, and charged with unpardonable neglect, for not calling forth the civil power, and employing the military in due time to obviate the mischiefs that had been committed. Ministry excused itself, from the want of sufficient strength to answer all the demands of assistance that were made during the riots, and the absolute impossibility of suppressing them till the arrival of troops from the country. The various petitions were now taken into consideration, that had been presented for the repeal of the act which had occasioned the riots; but the house continued in the same mind. Nevertheless it was thought proper to yield somewhat to the prejudices of the people, by passing a bill for preventing persons of the popish persuasion

from teaching or educating children of protestants; but this was afterwards thrown out by the lords.

The year 1783 was marked by a treaty, which concluded the American contest, and acknowledged the independence of the United Colonies.

For several years after this pacification, few events occurred of much importance to the domestic history of this country. His majesty's indisposition, with which he was attacked in 1788, appeared to threaten very serious consequences; but these were happily averted, by his subsequent recovery.

On account of the violent agitation of parties, which continued for several succeeding years, it is a task impossible to be performed, to give such a narration of them as would prove satisfactory to every description of readers. Having no wish to rekindle, in the slightest degree, that flame of discord which is now so happily extinguished, we shall borrow our account of that period from a respectable geographical treatise; without, however, undertaking to defend every assertion the following extract may contain, we shall only observe, that it is, in our opinion, as correct and impartial as any detail of the like size we have met with on the subject.

Early in the sessions of 1791, Mr. Wilberforce made a motion, in a committee of the house of commons appointed for receiving and examining evidence on the slave-trade, "that the chairman be instructed to move for leave to bring in a bill to prevent the further importation of African negroes into the British colonies." Although this question was supported with great eloquence by Mr. Francis, Mr. W. Smith, the chancellor of the exchequer, and Mr. Fox, yet it was negatived by a majority of 75. One immediate consequence of this was, the establishment of a company for the express purpose of cultivating West Indian, and other tropical productions, at Sierra Leone, on the coast of Africa, the bill for chartering which was introduced on the 28th of March, by Mr. Thornton.

On the 28th of March, 1791, a message was delivered from his majesty, importing that the endeavours which he had used, in conjunction with his allies, to effect a pacification between Russia and the Porte, not having proved successful, his majesty judged it requisite, in order to add weight to his representations, to make some further augmentation of his naval force. In consequence of a majority in support of this measure, a very large naval armament was prepared. Our fleet, collected to support the cause of the Turks against Russia, amounted in April to 33 ships of the line; and after maintaining this large equipment for four months, at an enormous expense, it was at last dismissed.

The proposed Russian war was certainly most unpopular, and the reception which the proposition of it met with in the house of commons ought perhaps to have induced the immediate dereliction of a measure, which, however meritorious its intentions might be, was not crowned by the public favour. No valuable purpose was attained by this armament. Russia has yielded little or nothing more than her first proposal: and we have not so effectually assisted the Turks, as to have any claim to their gratitude. The minister's popularity was considerably injured by these expensive

and injudicious preparations, in which Europe was astonished to behold, for the first time, Britain acting in a subservient capacity to the narrow and interested politics of Prussia.

Soon after the rising of the parliament, the nation was disgraced by a series of outrages and violences, as unprovoked and wanton as have ever darkened the annals of a civilized people; and which, for the space of four days, spread terror and alarm through the large and opulent town of Birmingham, and the adjacent country.

Concerning the French revolution, much difference of sentiment prevailed in this country; and much heat and ill-temper the discussion of that subject appeared unnecessarily to provoke. A considerable body of the whig party in Great Britain rejoiced in the emancipation of a neighbouring nation, and flattered themselves that they saw, in the establishment of the first French constitution, not only the annihilation of despotism in that country, but the commencement of a new system of politics in Europe, the basis of which was peace, happiness, and mutual concord.

In most of the large towns in Great Britain, associations were formed for the celebration of that event, by anniversary dinners on the 14th of July; but the opposite party were not indifferent spectators of these proceedings. The populace were inflamed by the most injurious insinuations, conveyed in newspapers and pamphlets; the friends of the French revolution were (certainly falsely as to the majority) stigmatised as determined republicans; and the act of joining in a convivial meeting on the odious 14th of July, was represented as an attempt to overturn the British constitution, in church and state.

Notwithstanding the pains which had been taken to depreciate these associations, the meeting in London consisted of not less than 1500 respectable gentlemen, many of them literary characters of high reputation. As, however, rumours had been spread to the disadvantage of the meeting, and the populace appeared to collect in a tumultuous manner round the Crown and Anchor tavern, where the meeting was held, the company dispersed at an early hour.

At Birmingham the causes of discord were more numerous than even at London. A violent animosity had subsisted for years between the high church party and the dissenters of that place; and the religious controversies which took place between Dr. Priestly and some of the clergy of Birmingham, greatly contributed to increase this animosity.

In such circumstances it is not surprising that the ignorant part of the inhabitants should confound the cause of the French revolution with that of the dissenters, especially since the majority of that persuasion have, since the revolution in 1688, been firmly attached to the whig system, and since Dr. Priestly, whom the populace considered as at the head of the dissenters there, had distinguished himself by opposing the celebrated pamphlet of Mr Burke.

A festive meeting, in commemoration of the French revolution, was projected at Birmingham, on Thursday, the 14th of July; and on the preceding Monday, six copies of a most inflammatory and seditious hand-bill, proposing the French revolution as a model to the English, and exciting them to rebellion, were left by some person unknown in

a public house. As the contents of this hand-bill were pretty generally circulated, they caused some ferment in the town; the magistrates thought it proper to offer a reward of 100 guineas for discovering the author, printer, or publisher of the obnoxious paper; and the friends of the meeting, intended for the 14th, thought it necessary at the same time to publish an advertisement, explicitly denying the sentiments and doctrines of the seditious hand-bill, and disavowing all connexion with its author or publishers.

The views and intentions of the meeting having, however, been much misrepresented, the majority of the gentlemen who projected it thought it adviseable to relinquish the scheme: accordingly, notice was given to that effect; but the intention revived, and the company met at the appointed time, to the amount of between 80 and 90. The ingenious Mr. Keir, well known for his great attainments in chemistry and other branches of philosophy, and a member of the established church, was placed in the chair.

The gentlemen had scarcely met, before the house was surrounded by a tumultuous crowd, who testified their disapprobation by hisses and groans, and by the shout of "Church and king," which became the watch-word on this occasion. At five o'clock the company dispersed; and soon afterwards, the windows in the front of the hotel were demolished, notwithstanding the appearance and interference of the magistrates.

Dr. Priestley did not attend the festival, but dined at home, at Fairhill, with a friend (the celebrated Mr. A. Walker, the philosopher,) from London. After supper they were alarmed with the intelligence that the mob were assembled at the new dissenting meeting-house (Dr. Priestley's), and were threatening both the doctor and his house. The rioters soon set the meeting-house on fire, and nothing remained that could be consumed. The old meeting house shared almost a similar fate. After this they proceeded to Dr. Priestley's house, the doctor and his family having just had time to escape to a small distance, where they could distinctly hear every shout of the mob, and the blows of the instruments that were used to break down the doors. The whole of the doctor's library, his valuable philosophical apparatus, his manuscripts and papers, were destroyed by the mob.

The next day, this infatuated multitude demolished the elegant mansion of Mr. Ryland; where, finding a profusion of liquor, a dreadful scene of intoxication ensued, and several of the wretched rioters perished in the cellars by suffocation, or by the falling in of the roof. The country residence of Mr. Taylor, the houses of Mr. Hutton (the ingenious historian of Birmingham), of Mr. Humphrey, of Mr Russell, and several others, were destroyed by the resistless fury of the mob, who continued their depredations until Sunday night, when three troops of the 15th regiment of light dragoons arrived. The town was then illuminated, and all was acclamation and joy. Of the unfortunate and infatuated wretches who were taken in the act of rioting, five were tried at Worcester, and one was found guilty and executed. At Warwick 12 were tried, but only four received sentence of death, of whom one was reprieved. For the honour of our country, we indulge the earnest hope that the disgraceful scenes which were acted at Birmingham, in 1791, will never be revived; but that, while the continent of Europe is unhappily drenched in human blood, this island will remain as con-

spicuous for its harmony, order, and tranquillity, as for its constitutional freedom and national prosperity.

The marriage of the duke of York with the princess royal of Prussia took place on the 29th of September, this year, at Berlin; and on the 25th of October, they arrived in England, and were received with public joy and applause. The Prussian monarch gave to the princess a portion of 100,000 crowns. A formal renunciation is made, in favour of the male succession, of all right of inheritance arising from the house of Prussia and Brandenburgh, as usually done on the marriages of the Prussian princesses. The sum of 4,000*l.* sterling is annually assigned for pin-money and other expences: and 8,000*l.* annually of jointure, in case of the death of her husband. In consequence of this union, and to enable his royal highness to live in a style suitable to his exalted station, and to the high rank of the illustrious personage to whom he was allied, parliament voted the sum of 18,000*l.* per annum, to his royal highness. His majesty also settled an additional 7,000*l.* per annum upon him, out of his Irish revenue; which, with 12,000*l.* per annum that he before enjoyed, made the sum of 37,000*l.* per annum. The revenues arising from the bishopric of Osnaburgh are said to amount to about 17,000*l.* per annum.

On the 2nd of April, 1792, the house of commons, in a committee of the whole house on the African slave-trade, came to a resolution, 230 against 85, for the gradual abolition. This subject was supported by the united talents of Mr. Wilberforce, Mr. Fox, and Mr. Pitt, for the immediate abolition. Mr. Dundas took a middle course, and argued for the gradual relinquishment of a traffic, which every good man must abhor, as degrading and debasing our fellow creatures to a level with the beasts. This bill, however met with a different reception in the house of lords.

The royal proclamation, on the 21st of May, 1792, against seditious writings, which was followed by orders for embodying the militia of the kingdom, engaged considerable share of the public attention. It had the intended effect, and excited numerous addresses, testifying the loyalty of the people.

In the beginning of the year 1793, numerous associations were formed throughout the kingdom against republican principles and theories, or, as the phrase usually adopted by such associations was, against republicans and levellers. To say that there were no persons who had embraced republican principles, and would have been willing to concur in changing the form of the government of this country, would be absurd; but there appears no reason to suppose that the cause for alarm was so great as many imagined, and others at least affected to believe. The truth lies between the two extremes.

The controversies occasioned by the pamphlets of Messrs. Burke and Calonne, and particularly the writings of Mr. Paine, writings well adapted to the comprehension of the lower class of people, and pregnant with pointed remarks on some existing abuses, though, perhaps, with little of sound policy or principle to recommend them, had undoubtedly contributed to render the example of the French revolution in some degree contagious. But the disaffected party was neither numerous nor respectable.

The church, the aristocracy, and all the most opulent of the community, were averse to any change or innovation whatever. It was among the lower part of the middle class of society that democratical opinions were chiefly entertained; and among them more probably as a matter of conversation, than as a project to be reduced to practice.

The violent proceeding of the French, however, had terrified the well-disposed part of the people, and almost disgusted them with the very name of reform. From the period of the fatal 10th of August, the converts from the French system were numerous; the proscription and persecution of the emigrants rapidly increased the number; and the premeditated ill treatment and unjust death of the king, almost entirely annihilated the spirit of republicanism in this country. The public wanted only to be excited, to give the most forcible proofs of its attachment to a constitution which had so wisely provided against the intolerable persecutions of tyranny, and the no less deplorable mischiefs of faction.

The first disposition manifested by Great Britain to break with France, regarded the navigation of the Scheldt, which the French had determined to open for the benefit of Antwerp and the Netherlands. This impediment, however, might perhaps have been removed, from the little disposition which was evinced by Holland to assert its right to the exclusive navigation, and from the readiness of the French to refer the whole affair to a negotiation.

The next exception which was taken by the English ministry was to the decree of fraternity, which was offered by the French convention to the revolting subjects of any monarchial (or, as they said, tyrannical) government, and which was construed into a direct affront to this country, and a plot against her peace.

The alien bill, which the French complained was an infraction of the commercial treaty, was the next cause of dispute; and this offence was augmented by the prohibition to export corn to France, while it was freely allowed to the powers at war with that country.

At length, towards the end of January, M. Chauvelin was officially informed by the English court, that his character and functions, so long suspended, had entirely terminated by the fatal death of the king of France; that he had no more any public character here, where his future residence was forbidden. Eight days were allowed for his departure; and this notification was published in the gazette. M. Marat had been sent by the executive council of France with enlarged powers, and, it was said, with advantageous proposals to Great Britain; but arriving in England exactly at the period of M. Chauvelin's dismission, he thought it prudent immediately to return home.

Mr. Secretary Dundas, on the 28th of January, presented to the house of commons a message from the king, in which his majesty expressed the necessity of making a further augmentation of his forces by sea and land, for maintaining the security and rights of his own dominions, for supporting his allies, and for opposing views of aggrandisement and ambition on the part of France. The question in relation to this subject was carried by a great majority in favour of ministers.

On the 25th of March, 1794, lord Grenville and S. Comte Woronzow signed a convention at London, on behalf of his Britannic majesty and the empress of Russia, in which their majesties agree to employ their respective forces in carrying on the "just and necessary war," in which they were engaged against France; and they reciprocally promise not to lay down their arms, but by common consent. Notwithstanding this solemn treaty, Catharine took no active part whatever in the war. Another treaty was concluded between his Britannic majesty and the king of Sardinia, signed at London, the 25th of April, by which Great Britain engaged to pay 200,000*l.* per annum to the king of Sardinia, and three months in advance. A treaty was likewise concluded between his highness the prince of Hesse-Cassel and his Britannic majesty; the former was to furnish 8,000 men for the war during three years; in return for which, England was to pay 100,000*l.* levy-money, and 56,000*l.* sterling per annum for six years. In this treaty, Great Britain engages to pay the landgrave a sum of money for each Hessian that is slain; so that the more men he loses, the more money he gains.

The prosecutions which have taken place in England and Scotland for seditious words, and for libellous and dangerous publications, may certainly be considered as strongly characterising the spirit of the times; we shall therefore give a concise account of some of the principal of these trials.

At Edinburgh, Thomas Muir, esq. was tried before the high court of justiciary, for seditious practices. In the indictment, the prisoner was charged with wickedly and feloniously exciting, by means of seditious speeches and harangues, a spirit of disloyalty and disaffection to the king and the established government; of producing and reading aloud in public meetings a seditious and inflammatory writing, called, "An Address from the Society of United Irishmen in Dublin, to the Delegates for promoting a Reform in Scotland," tending to produce in the minds of the people an insurrection and opposition to the established government. The jury being named, Mr. Muir objected to most of them; he observed, that as the gentlemen, however respectable, were all subscribers to the Goldsmiths'-hall association, and had offered a reward for discovering those who had circulated what they called seditious writings, they had already prejudged him, and were therefore improper persons to pass upon his assize: but this objection was repelled by the court.

The most material witness against the accused was Anne Fisher, a servant of his father; she said that she carried from him to the printer a Declaration of Rights, marked with some corrections, to be printed: she added, that she had heard Mr. Muir talk to the countrymen coming to the shop of his father, very often concerning Paine's Rights of Man, which she heard him say was a very good book: that he wished his hair-dresser to purchase them, and keep them in his shop to enlighten the people; that Mr. Muir said, when the reform took place, he would be member for Calder: that members would then be allowed 30 or 40 shillings a day, and that none but honest men would be admitted, to keep the constitution clean; and that she had caused an organist in the streets of Glasgow to play ca ira at Mr. Muir's desire.

After a trial of sixteen hours' duration, the jury returned a verdict, finding the prisoner

guilty. The court then proceeded to pronounce sentence, and ordered him to be transported beyond the seas, to such place as his majesty, with the advice of his privy council, should judge proper, for fourteen years. He was soon after sent to Botany Bay, whence he found means to escape in an American vessel, and, after a variety of extraordinary adventures and escapes, if the accounts that have been received are authentic, arrived in France, where he was received with public congratulations, as the martyr of liberty, and where he still continues.

On the 17th of September, of the same year, the Rev. Mr. Palmer, an unitarian clergyman, residing at Dundee, was tried by the circuit court of justiciary, before lords Eskgrove and Abercrombie. The indictment charged him with being present at a meeting held at Dundee, denominating itself "A Society of the Friends of the People;" that he did there put into the hands of George Mealmaker a writing of a seditious import, in the form of an address to their friends and fellow citizens, containing, among other seditious expressions, the following words; "You are plunged into a war by a wicked minister and a compliant parliament, who seem careless and unconcerned for your welfare; the end and design of which is almost too horrid to relate; the destruction of a whole people merely because they will be free." When the court proceeded to the examination of witnesses, George Mealmaker, weaver, in Dundee, acknowledged himself to be the author of the paper in question; it appeared, however, that Mr Palmer had corrected it, ordered it to be printed, and circulated it. The verdict was returned the same day, finding the prisoner guilty; in consequence of which he was sentenced to transportation for 14 years. This gentleman was sent to the hulks with Mr. Muir, and sailed with him to Botany Bay.

On the 21st of January, 1794, the two houses met. The speech from the throne enumerated, with some degree of minuteness, the advantages obtained by the allies, and exhorted to a spirited prosecution of the war, and to a reliance on the resources of the country, and the strength of our allies, for ultimate success. The address to his majesty, in which the parliament agreed to support him in the continuance of the war, was carried in favour of ministry by a very great majority.

In March following, the secession of the king of Prussia from the great cause of the allies agitated the political world for several weeks, when it was announced that the whole proceeded from his inability to supply his troops from the resources of his own country, and therefore that he must be subsidised to enable him to employ his forces for the great purpose of restoring regular government to France. The parliament, influenced by the arguments which were advanced by the minister, voted the sum of 2,500,000*l.* to be granted to his majesty, to enable him to fulfil the stipulations of the treaty concluded with Prussia for the more vigorous prosecution of the war, and for such exigencies as might arise in the year 1794. Notwithstanding this fresh treaty, the Prussian monarch soon after entirely relinquished the war, having found full occupation for himself and his troops in endeavouring to suppress the insurrections in Poland, which we shall particularly notice in our narrative of the events of that unfortunate country.

On the 12th of May, 1794, a message from his majesty was brought down to the house by Mr. Secretary Dundas, in which he informed them, "That the seditious practices which had been for some time carried on by certain societies in London, in correspondence with societies in different parts of the country, had lately been pursued with increased activity and boldness; and had been avowedly directed to the object of assembling a pretended general convention of the people, in contempt and defiance of the authority of parliament; that his majesty had given orders for seizing the books and papers of these societies, which were to be laid before the house; and that it was recommended to the house to consider them, and to pursue such measures as were necessary, in order to prevent their pernicious tendency."

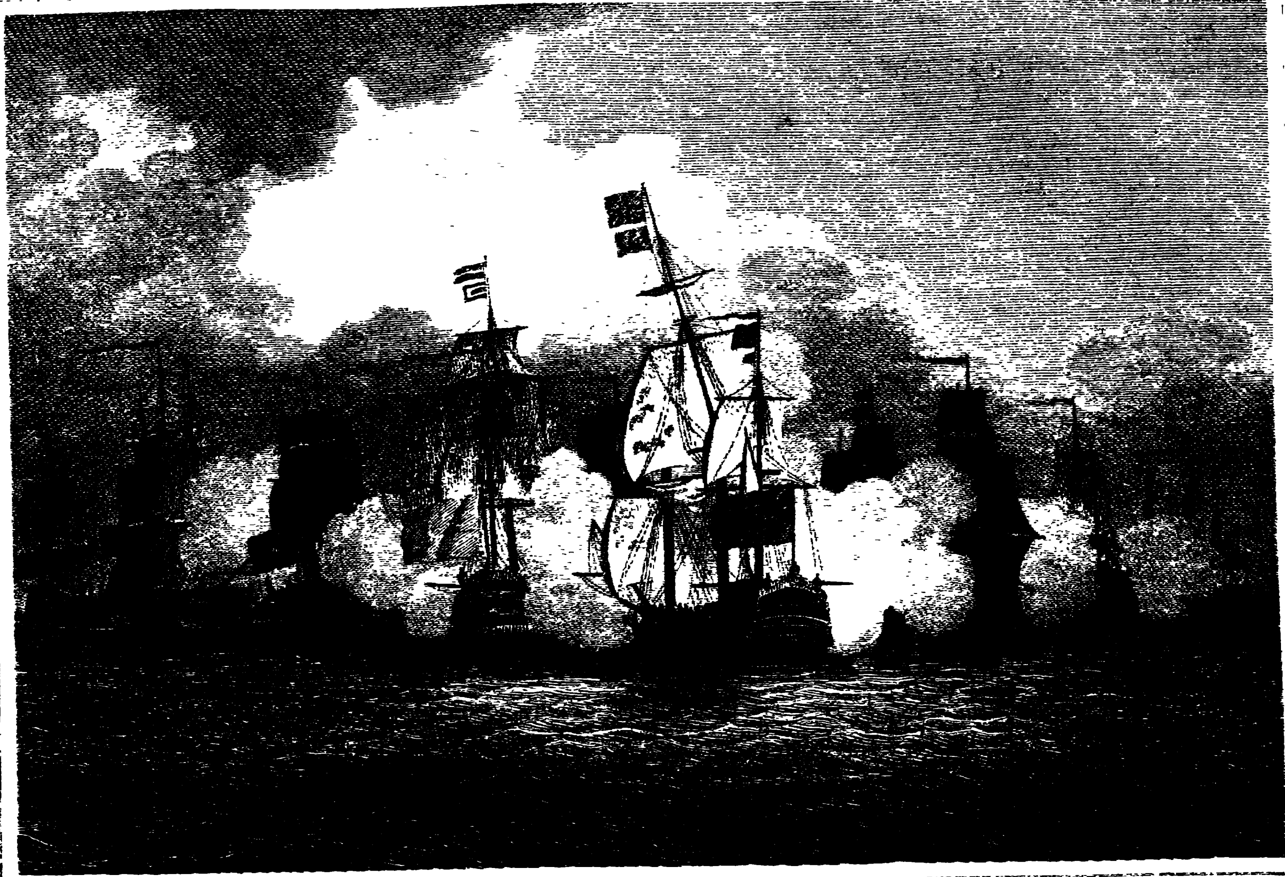
The same day Mr. Thomas Hardy, a shoe-maker in Piccadilly, who had acted as secretary to the London Corresponding Society, and Mr. Daniel Adams, the secretary to the Society for Constitutional Information, were apprehended, by a warrant from Mr. Dundas, for treasonable practices, and their books and papers were seized. Mr. Horne Tooke, Mr. Jeremiah Joyce, preceptor to lord Mahon, and Mr. Thelwall, who had for some time entertained the town as a political lecturer, were afterwards, in the course of the week, arrested and committed to the Tower, on a charge of high treason.

On the day following the seizure of the papers of these societies, they were brought down sealed to the house of commons by Mr. Dundas, and referred to a committee of secrecy, consisting of 21 members.

In consequence of the first report of the committee of secrecy, with respect to the plans which had been formed by these societies for holding a general convention of the people, and intimating their suspicions that large stands of arms had been collected by these societies, in order to distribute them among the lower orders of the people, the chancellor of the exchequer moved "for leave for a bill to empower his majesty to secure and detain such persons as his majesty suspected were conspiring against his person and government." By this bill the temporary suspension of the Habeas Corpus act is effected. It was carried, on the minister's motion, by a majority of 162.

On the first of June, 1794, the British fleet, under the command of admiral lord Howe, obtained a signal victory over that of the French, in which two ships were sunk, one burnt, and six brought into Portsmouth harbour.

On the 10th of September, a special commission of oyer and terminer was issued for the prisoners confined on a charge of high treason in the Tower of London; and on the 2nd of October, it was opened at the sessions house, Clerkenwell, by the lord chief justice Eyre, in an elaborate charge to the grand jury; and in the course of their proceedings, the jury found a bill of indictment against Thomas Hardy, John Horne Tooke, and ten others; and on the 28th of October, Thomas Hardy, the late secretary to the London corresponding Society, was put on his trial at the Old Bailey. Mr. Wood opened the pleadings, and stated nine overt acts of high treason, with which the prisoner was charged. When he had finished, sir John Scott, the attorney-general, in a speech of nine hours, went into a minute detail of the subject of these prosecutions for high treason.



LORD HOWE'S ENGAGEMENT with the FRENCH FLEET, June 1st, 1794.

The counsel for the prosecution then proceeded to produce their evidence, which consisted of papers that had been found in the custody of different persons, and seized under the warrant of the privy council.

Previously to the court's breaking up, about 12 o'clock a conversation ensued respecting the gentlemen of the jury, who wished to be discharged on their honour, to which Mr. Erskine, on behalf of the prisoner, consented; but the court was of opinion, that the law would not permit the jury to separate, after having once impannelled. The jury were therefore consigned to the care of the sheriffs, by whom preparations for their accommodation in the session's house had been previously made, and the next day the jury having complained that their accomodations were uncomfortable, and incapable of affording them the necessary rest, they were provided that evening, and all the subsequent evenings of the trial, with beds at the Hummums in Covent Garden.

The 29th, 30th, and 31st of October, were employed in the production of evidence for the crown, both documentary and oral, which latter took up great part of the morning of November the 1st. This being finished, Mr. Erskine, in behalf of the prisoner, addressed the jury for the space of six hours. The remainder of the day was occupied in the examination of witnesses for the prisoner, many of whom gave him an excellent character.

The court adjourned at half past twelve on Sunday morning, November 2nd, till the Monday following, when the counsel for the prisoner proceeded with their evidence; after which Mr. Gibbs likewise addressed the court in his favour. He was followed by the solicitor-general in reply. The next day the solicitor-general concluded his reply, and the lord president commenced the summing up the evidence, which he resumed the following day, and finished about noon. The jury then retired: and after having been absent two hours and a half, returned and delivered their verdict, Not guilty.

On Monday, November 17th, the court again met, and proceeded on the trial of John Horne Tooke, esq. on the same charge of high treason. This trial was conducted in the same manner as the preceding, and ended on the Saturday following, about eight in the evening, when the jury retired, and in a few minutes returned and delivered their verdict, Not guilty.

On Monday, the 6th of December, the court again met, and John Augustus Bonney, Jeremiah Joyce, Stewart Kyd, and Thomas Holcroft, were arraigned, and a jury was sworn in; when the attorney-general informed the court that he should decline going into the evidence against the prisoners, as it was the same as had been adduced on the two late trials, and on which, after the most mature consideration, a verdict of acquittal had been given. The prisoners were of course acquitted and discharged.

Mr. Thelwall was then put to the bar, and, after a trial of five days, acquitted.

Towards the close of the year 1795, a dreadful and oppressive scarcity pervaded the kingdom. The price of the half peck loaf rose in the metropolis to half-a-crown, and in some places it was still higher. Several instances occurred of persons who perished through absolute want; and the poor were every where in the utmost distress. A committee of the house of commons was appointed to consider of the high price of corn,

They drew up and entered into an engagement to use only brown bread, and reduce the consumption of wheat in their families by every possible expedient. This engagement was signed by the principal persons in the ministry, and great numbers of the members of both houses.

On the 29th of October, the king opened the session of parliament. Immense crowds were assembled, who at length became riotous, loudly exclaiming, "No war! No Pitt! No famine!" A few voices, it is said, were heard to exclaim, "Down with George!" In the park and in the streets adjacent to Westminster-hall, some stones and other things were thrown, nine of which, it is asserted, struck the state coach, and one of them, which was suspected to have proceeded from a window in Margaret-street, near the Abbey, perforated one of the windows by a small circular aperture, from which circumstance, it was supposed by some to have been a bullet, discharged from an air-gun, or some similar engine of destruction, but no bullet was found, and whatever it was, it neither touched the king nor the noblemen who attended him. As his majesty returned from the house through the park, though the gates of the horse-guards were shut, to exclude the mob, this precaution was not sufficient to prevent a renewal of the outrages, and another stone was thrown at the carriage as it passed opposite to Spring-garden Terrace. After the king had alighted at St. James's, the populace attacked the state carriage, and in its way through Pall-Mall to the Mews, it was almost demolished.

In consequence of these daring insults and outrages, a proclamation was issued, offering a reward of 1000*l.* to any person or persons, other than those actually concerned in doing any act by which his majesty's royal person was immediately endangered, who should give information, so that any of the authors and abettors in that outrage might be apprehended and brought to justice.

Several persons were apprehended on suspicion of having insulted his majesty, one of whom, named Kyd Wake, a journeyman printer, was brought to trial, and found guilty of hooting, groaning, and hissing at the king. He was sentenced to stand in the pillory at Gloucester, on a market day, to be imprisoned and kept to labour during five years, in the penitentiary house at Gloucester, and, at the expiration of his imprisonment, to find security in one thousand pounds for his good behaviour for ten years.

In the two houses, after an address had been voted, testifying their indignation and abhorrence at the daring outrages offered to his majesty, two bills were immediately brought in; the one by lord Grenville, in the upper house, entitled, "An act for the safety and preservation of his majesty's person and government against treasonable and seditious practices and attempts:" and the other by Mr. Pitt, in the house of commons, entitled, "An act to prevent seditious meetings and assemblies." These bills were vigorously opposed in both houses, though only by the usual minorities in point of numbers. Petitions, with very numerous signatures, were likewise presented against them from every part of the kingdom. They, however passed, and are now become a part of the law of the land.

The beginning of the year 1797 was distinguished by as extraordinary an event as perhaps ever occurred in this or any other war—the invasion of Great Britain by a force of 1200 men, without artillery, and almost without accoutrements. The alarm at first was general and great throughout the whole of Pembrokeshire, on the coast of which the landing was made; but the men surrendered, on the approach of a very inadequate force, and almost without resistance. On inquiry, it appeared that they consisted entirely of galley-slaves, and other criminals from Brest; and the object was supposed to be at once to create an alarm on the British coast, and to rid the French republic of a number of desperate persons; but whatever the intentions of the enemy might be, they met, on the whole, with a complete disappointment; for not only the expedition proved entirely fruitless, but as two of the ships which disembarked the men were returning into Brest harbour, they were captured by the St. Fiorenzo and Nymph frigates.

The apprehensions excited by this circumstance had scarcely subsided, when a more serious cause of alarm occurred to agitate the minds of the public. The bank of England discontinued the issuing of specie in their customary payments. A run (to speak in the commercial phraseology) had taken place upon some of the country banks; and the great demand for specie from the bank of England induced the directors to lay the state of their company before the minister; in consequence of which, an order of council was made on the 26th of February, prohibiting the further issue of specie from the bank. This order was afterwards sanctioned and ratified by an act of parliament, by which the restriction was continued to midsummer, and afterwards by another act, continuing it to the end of the present war.

On the third of March, government received intelligence of an important advantage obtained by the British fleet, under the command of sir John Jervis, over a Spanish fleet of much superior force, on the 14th of February, off Cape St. Vincent. The English admiral, by a successful manœuvre, separated the rear of the enemy's fleet from the main body, and captured two ships of 112 guns, one of 84, and one of 74.

The seamen of England, however, who had so long been the defence and the glory of the nation, seemed suddenly to conspire its overthrow. In the middle of April, a most alarming mutiny broke out in the Channel fleet at Spithead, under the command of lord Bridport. The sailors required an advance of their pay, and certain regulations to be adopted relative to the allowance of provisions. They appointed delegates, two for each ship, who for several days had the entire command of the whole fleet, over which no officer had the least authority. In this critical situation, government deemed it most expedient to promise a full compliance with all their demands; on which they cheerfully returned to their duty. But in a week or two afterwards, no act of indemnity having been offered in parliament for the security of those concerned in the mutiny, they again rose, deprived their officers of their authority, and the dispute seemed to wear a more gloomy aspect than before. A bill, securing to the seamen what they had been promised, was therefore hastily passed through both houses,

and lord Howe went down to Portsmouth to act as mediator. The delegates of the fleet declared themselves satisfied, and harmony and good order were immediately restored.

The ferment, however, still continued in other parts of the navy, and soon after the seamen of some ships lying at Sheerness began to mutiny, and behaved riotously, and so contagious was the spirit of insurrection now become among the seamen, that almost all the ships of admiral Duncan's fleet at Yarmouth appointed delegates, and sailed to the Nore, to join the ships from Sheerness. New grievances were required to be redressed, and new and extravagant demands to be complied with; government was now convinced that to yield would be only to encourage a repetition of similar proceedings, and every disposition was therefore made to force these ships to submission. All communication between them and the shore was cut off, and no provisions or water suffered to go to them. The mutineers, to supply themselves with these, detained all vessels coming up the river, and took out of them whatever they chose, for which their delegates, the principal of whom was one Richard Parker, a man of strong natural abilities, gave draughts on the treasury, as taken for the use of the navy of England. At length, being reduced to great want of water, and dissentions and distrust prevailing among themselves, several ships left the mutinous fleet, and surrendered themselves at Sheerness. Some of these were fired upon by the others; but at length they all came in and gave up their delegates, who, with a number of others that were considered as principals in the mutiny, were tried by a court-martial. Some of them were executed; others sentenced to different punishments, and the rest pardoned. Richard Parker was the first who was tried and executed. He displayed great presence of mind, and suffered with the utmost fortitude.

As if to erase this stain from the annals of the British navy, the fleet of admiral Duncan, consisting principally of the ships which had been engaged in this unhappy and disgraceful mutiny, sailed soon after to watch the motions of the Dutch fleet in the Texel, where it remained for some time blockaded, till, on its venturing out, an engagement ensued, in which the English fleet obtained a complete victory, taking the Dutch admiral De Winter, the vice-admiral, and nine ships.

The principal events of the succeeding year having taken place in Ireland, it is necessary to give a retrospective view of the affairs of that kingdom, that the readers may thus be enabled the better to understand the occasion of those contentions which have been attended with such a profuse waste of the blood of British subjects.

The forfeitures that fell to the crown, on account of the Irish rebellions and the revolution, are almost incredible; and had the acts of parliament which gave them away been strictly enforced, Ireland must have been peopled with British inhabitants. But many political reasons occurred for not driving the Irish to despair. The friends of the revolution and the protestant religion were sufficiently gratified out of the forfeited estates. It was therefore thought prudent to relax the reins of government, and not to put the fofeitures too rigorously into execution. The experience of half a century has confirmed the wisdom of the above considerations. The lenity of the measures

pursued in regard to the Irish Roman catholics, and the great pains taken for the instruction of their children, with the progress which knowledge and the arts have made in that country, have greatly diminished the popish interest. The spirit of industry has enabled the Irish to know their own strength and importance, to which some accidental circumstances have concurred. All her ports were opened for the exportation of wool and woollen yarn to any part of Great Britain; and of late years, acts of parliament have been made occasionally, for permitting the importation of salt-beef, pork, butter, cattle, and tallow, from Ireland to Great Britain.

But though some laws and regulations had occasionally taken place favourable to Ireland, it must be acknowledged that the inhabitants of that country laboured under considerable grievances, in consequence of certain unjust and injudicious restraints of the parliament of England respecting their trade. These restraints had injured Ireland, without benefiting Great Britain. The Irish had been prohibited from manufacturing their own wool, in order to favour the woollen manufactory of England; the consequence of which was, that the Irish wool was smuggled over into France, and the people of that country were thereby enabled to rival us in our woollen manufacture, and to deprive us of a part of that trade. An embargo had also been laid on the exportation of provisions from Ireland, which had been extremely prejudicial to that kingdom. The distresses of the Irish manufacturers, as well as those of Great Britain, had been much increased by the consequences of the American war. The circumstances occasioned great murmuring in Ireland, and some attempts were made for the relief of the inhabitants of that kingdom in the British parliament, but for some time without success; for a partiality in favour of the trade of England, prevented justice from being done to Ireland. But several incidents, which happened afterwards, at length operated strongly in favour of that kingdom. When a large body of the king's troops had been withdrawn from Ireland, in order to be employed in the American war, a considerable number of Irish gentlemen, farmers, traders, and other persons, armed and formed themselves into volunteer companies and associations, for the defence of Ireland against any foreign invaders. By degrees, these volunteer associations became numerous and well disciplined; and it was soon discovered that they were inclined to maintain their rights at home as well as to defend themselves against foreign enemies. When these armed associations became numerous and formidable, the Irish began to assume a higher tone than that to which they had been accustomed, and it was soon manifest that their remonstrances met with unusual attention, both from their own parliament and from that of Great Britain. The latter, on the 11th of May, 1779, presented an address to the king, recommending to his majesty's most serious consideration, the distressed and impoverished state of the loyal and well deserving people of Ireland; and desiring him to direct that there should be prepared and laid before parliament, such particulars relative to the trade and manufactures of Great Britain and Ireland, as should enable the national wisdom to pursue effectual measures for promoting the common strength, wealth, and commerce, of his majesty's subjects of both kingdoms.

To this address the king returned a favourable answer; and in October, the same year, both houses of the Irish parliament also presented addresses to his majesty, in

which they declared that nothing but granting Ireland a free trade could save it from ruin. Notwithstanding which, it being soon after suspected by many of the people of that kingdom, that the members of their parliament would not exert themselves with vigour in promoting the interests of the nation, a very daring and numerous mob assembled before the parliament-house in Dublin, crying out for a free trade and a short money-bill. They assaulted the members, and endeavoured to compel them to swear that they would support the interest of their country, by voting for a short money-bill, and they demolished the house of the attorney-general. The tumult at length subsided: and two Irish money-bills, for six months only, were sent over to England, where they passed the great-seal, and were immediately returned, without any dissatisfaction being expressed by government at this limited grant.

In the mean time, the members of the opposition in the English parliament very strongly represented the necessity of immediate attention to the complaints of the people in Ireland, and a compliance with their wishes. The arguments on this side of the question were also enforced by the accounts which came from Ireland, that the volunteer association in that kingdom amounted to 40,000 men, unpaid, self-appointed, and independent of government, well armed and accoutred, daily improving in discipline, and which afterwards increased to 80,000.

The British ministry appeared for some time to be undetermined what part they should act in this important business; but the remembrance of the fatal effects of rigorous measures respecting America, and the very critical situation of Great Britain, at length induced the first lord of the treasury to bring in such bills as were calculated to afford effectual commercial relief to the people of Ireland. Laws were accordingly passed, by which all these acts were repealed, which had prohibited the exportation of woollen manufactures from Ireland, and other acts by which the trade of that kingdom to foreign countries had been restrained; and it was likewise enacted that a trade between Ireland and the British colonies in America, and the West Indies, and the British settlements on the coast of Africa, should be allowed to be carried on in the same manner, and subject to similar regulations and restrictions with that carried on between Great Britain and the said colonies and settlements.

These laws in favour of Ireland were received with much joy and exultation in that kingdom; and the Irish nation, being indulged in their requisitions respecting trade, now began also to aim at important constitutional reformations; and in various counties and cities of Ireland, the right of the British parliament to make laws which should bind that kingdom was denied in public resolutions. By degrees, the spirit which had been manifested by the Irish parliament seemed a little to subside; and a remarkable instance of this was, their agreeing to a perpetual mutiny-bill, for the regulation of the Irish army, though that of England had always been passed, with a true constitutional caution, only from year to year. This was much exclaimed against by some of the Irish papists, and indeed it is not easy to clear their parliament from the charge of inconsistency; but this bill was afterwards repealed, and the commercial advantages afforded them by several acts in their favour, greatly contributed to promote the prosperity of Ireland. As before observed, by the act repealing the statute of the 6th of George I.

they were fully and completely emancipated from the jurisdiction of the British parliament; and the appellant jurisdiction of the British house of peers in Irish causes was likewise given up.

In the year 1783, the government, the nobility, and the people of Ireland, vied with each other in countenancing and giving an asylum to many families of the Genevese, who were banished from their city, and others who voluntarily exiled themselves for the cause of liberty, not willing to submit to an aristocracy of their own citizens, supported by the swords of France and Sardinia.

A large tract of land in the county of Waterford was allotted for their reception, a town was marked out, and entitled New Geneva, and a sum of money granted for erecting the necessary buildings. These preparations for their accommodations were, however, rendered ultimately useless, by some misunderstanding (not fully comprehended) which arose between the parties; and the scheme accordingly fell to the ground.

Upon the occasion of the unhappy malady with which the king was afflicted, the lords and commons of Ireland came to a resolution to address the prince of Wales, requesting him to take upon him the government of that kingdom during his majesty's indisposition, under the stile and title of prince regent of Ireland, and to exercise and administer, according to the laws and constitution of the realm, all the royal authorities, jurisdictions, and prerogatives, to the crown and government thereof belonging. The marquis of Buckingham, being then lord-lieutenant, having declined presenting the address, as contrary to his oath and the laws, the two houses resolved on appointing delegates from each: the lords appointed the duke of Leinster and the earl of Charlemont; and the commons, four of their members. The delegates proceeded to London, and, in February, 1789, presented the address to his royal highness, by whom they were most graciously received; but his majesty having, to the infinite joy of all his subjects, recovered from his severe indisposition, the prince returned them an answer, fraught with the warmest sentiments of regard for the kingdom, and of gratitude to parliament, for the generous manner in which they proposed investing him with the regency, though the happy recovery of his royal father had now rendered his acceptance of it unnecessary.

The parliament of Ireland has extended liberal indulgences to the Roman catholics of that kingdom, by establishing the legality of inter-marriages between them and the protestants, by admitting them to the profession of the law, and the benefit of education, and by removing all obstructions upon their industry in trade and manufactures. A reciprocal preference in the corn trade with Britain has been established. Further progress has been made in checking the immoderate use of spirituous liquors and some wise institutions have been ordained for the regulation of charitable foundations.

In the year 1793 in consequence of the concessions of government, a bill passed the legislature, by which the Roman catholics, being freeholders, are entitled to vote for members to serve in parliament. The patriots of Ireland have been less successful in their attempts to procure a reform in parliament itself, as, notwithstanding the resolution in the beginning of the session, to inquire into the state of the representation, nothing

effectual has been done; the times, it is alledged, discouraging useful innovations from the just dread of ruinous or hurtful ones.

Notwithstanding the catholics of Ireland had been restored, in some measure, to their civil rights by the concessions of the elective franchise, it does not appear that either their own leaders or their parliamentary adherents were satisfied with what had been granted, or were likely to be contented with less than a total repeal of all remaining disqualifications; and when, in the beginning of the year 1795, earl Fitzwilliam was appointed lord lieutenant of Ireland, after the accession of the Portland party to the administration, they considered the point in dispute as absolutely conceded by the ministry.

A committee was therefore appointed to bring forward a petition to parliament, for a repeal of all remaining disqualifications. Notice of this his lordship transmitted to the minister, stating at the same time his own opinion of the absolute necessity of concession, as a measure not only wise, but essential to the public tranquillity. To this no answer was received, and on the 12th of February, Mr. Grattan moved for leave to bring in a bill, for the further relief of his majesty's subjects professing the Roman catholic religion; and after a feeble opposition, leave was given. By the intrigues, however, of another political party, at the head of which was Mr. Beresford, a gentleman who had united in his own person, or in that of his son, the important and discordant offices of minister, commissioner of the treasury, of revenue, counsel to the commissioners, store keeper, and banker, the measure was defeated, and lord Fitzwilliam suddenly recalled. His lordship left Dublin for England, on the 25th of March, which day was observed in that city as a day of general mourning; the shops were shut, no business was transacted, and the citizens appeared in deep mourning. In College-green, a number of respectable gentlemen, dressed in black, took the horses from his excellency's carriage, and drew it to the water side. His lordship wished, as usual on such occasions, to distribute money; but, with the noblest enthusiasm, the offer was rejected, even by a mob. The military had been ordered out, in expectation of some disturbance, but nothing appeared among the populace, but the serious emotions of sorrow, and the utmost order and decorum.

Earl Cambden, who was appointed to succeed his lordship, arrived in Dublin on the 31st of March. The whole system of administration was now changed; all ideas of concession on the part of government were abandoned, and coercive measures alone employed to silence all complaints. Of this harsh and unyielding system, the factious and disaffected took advantage to promote their designs, and increase the numbers of their adherents.

About the beginning of the year 1791, the society which has since became so notorious, under the name of United Irishmen, was instituted; the ostensible principles of which were parliamentary reform, and what they chose to term catholic emancipation, or a full restoration of the catholics to all the privileges of Irish subjects. This society is said to have owed its origin to a person, whose life has since paid the forfeit of his treasonable intrigues, Mr. Theobald Wolfe Tone, and its constitution certainly evinced much ability and political knowledge. The real views of the authors and leaders, which

latterly at least appear to have been no less than to effect a total separation of the country from Great Britain, and the erection of a republic, after the plan and under the protection of France, were probably scarcely mistrusted by the great body of the members.

The first and principal article expressed that "the society was constituted for the purpose of forwarding a brotherhood of affection, a community of rights, and an union of power among Irishmen of every religious persuasion, and thereby to obtain a complete reform in the legislature, founded on the principles of civil, political, and religious liberty." For several years this society, from the secrecy and circumspection with which its affairs were conducted, attracted but little the attention of government. But the violence of party disputes, which followed on the recal of earl Fitzwilliam, considerably increased the number of its adherents, and added to them several persons of abilities and influence, in particular Mr. Arthur O'Connor, who had distinguished himself by his able support of earl Fitzwilliam's administration in the house of commons; Dr. M'Nevin, who had been chairman of the committee for enforcing the claims set forth in the catholic petition; and Mr. Oliver Bond, an opulent citizen of Dublin, who had been an active supporter of the same principles. From the confession of these very persons, it appears, however, that when they joined the society, the views of its leaders were no longer confined to parliamentary or constitutional relief of any kind; since, in the year 1795, through the medium of Mr. Tone, and other Irish refugees, who had fled to France, a regular communication was opened between the French directory and the United Irishmen; and in the course of the summer of 1796, lord Edward Fitzgerald proceeded to Switzerland, and had an interview near the French frontier, with general Hoche, when it is believed the whole plan of an invasion was finally adjusted. An attempt to carry it into execution was made in the December following, when the French fleet took the opportunity afforded by a thick fog, to elude the vigilance of admiral Colpoys, by whom they had been for several months blocked up in Brest, and set sail for Ireland. But the fleet was dispersed by violent storms: a part of it, however, consisting of eight two-deckers, and nine other vessels of different classes, anchored on the 24th in Bantry bay. The violence of the weather preventing any attempt to effect a landing, they quitted the coast on the 27th in the evening; but an officer and seven men were driven on shore, in a boat belonging to one of the French ships. This officer, upon examination, stated, that the fleet, when it left Brest, consisted of about 50 sail, and that it had on board 25,000 men, commanded by general Hoche. A considerable degree of alarm was excited in Ireland, by the appearance of this armament, but the people in general in this part of the kingdom evinced the most determined loyalty, and manifested the greatest readiness to meet and resist the enemy, whenever they might attempt a descent.

The failure of the expedition under Hoche did not, however, discourage the members of the Irish union; they, on the contrary, endeavoured more firmly to cement their alliance with France, and established a regular communication and correspondence with that country. New arrangements were made for an invasion, and Dr. M'Nevin, about this time, transmitted to the French government a memorial, in which he stated that

150,000 United Irishmen were enrolled and organised in the province of Ulster. During the summer of 1797, great preparations were therefore made for a second attempt, both at Brest and in the Texel; it having been determined that the Dutch should supply a fleet and land forces, to co-operate in this design But this plan was rendered abortive, by the memorable victory of lord Duncan over the Dutch fleet, on the 11th of October of that year.

In the beginning of the year 1798, Mr. O'Connor came to England, with an intention, as it afterwards appeared, of going over to France, in conjunction with John Binns, an active member of the London Corresponding Society, James Coigley, an Irish priest, and a person of the name of Allen. Being, however, suspected, they were apprehended and tried at Maidstone, where they were all acquitted except Coigley, on whom had been found a treasonable, though extremely absurd paper, purporting to be an address from the "Secret Committee of England to the Executive Directory of France." He was therefore convicted and executed. O'Connor, after his acquittal, was detained on another charge of treason preferred against him, and sent back to Ireland.

In the course of these different negotiations with the enemy, the violence of some of the disaffected party in Ireland could scarcely be restrained from breaking out into open insurrection, without waiting for the promised assistance from the Gallic republic; but they were over-ruled by those who had more coolness and caution. The government of Ireland, in the mean time, received only obscure and perplexed intelligence of those proceedings, which appear to have been conducted with so much art and secrecy, as to prevent administration from discovering, for a considerable time, the real views and conduct of the society. But at length they received information, that a seditious meeting was to be held at the house of a person of the name of Alexander, at Belfast, on the 14th of April, 1797; and, in consequence, colonel Barber, with a detachment of soldiers, proceeded on that day to the place of meeting, where he found two societies or committees actually sitting, and siezed their papers and minutes, among which were the printed declarations and constitution of the United Irishmen, various reports from provincial and county committees, and several other important documents, which left them no longer in doubt respecting the extent and views of this formidable conspiracy. About the same time likewise the magistrates, in other parts of the kingdom, discovered other papers that were circulated by the society, and which served to confirm the discoveries already made, and to throw additional light on the proceedings of the conspirators.

The most active and vigorous measures were now adopted by government; a very considerable addition was made to the military force of the kingdom; a bill was passed, prohibiting seditious meetings; the habeas corpus act was suspended; whole counties were proclaimed out of the king's peace, and seizures made of great quantities of concealed arms.

In the enforcement of these measures, many acts of rigour, and even cruelty appear to have been committed by the agents of government; but it should be at the same time remembered, that numerous acts of atrocious barbarity were likewise

committed by the rebels. The loyalists knew, that if the schemes of their enemies proved successful, the plunder and confiscation of their property was the least evil they had to fear. The concealment and obscurity of the danger, they knew to be imminent, might well excite a dread, which rendered them incapable of listening to the dictates of moderation, or even, in some cases, of justice.

These rigorous measures were, likewise, in some degree, still further justified, by the more complete discovery which government soon after made of the traitorous designs and proceedings of the society. Among other members of it was a Mr. Reynolds, who had formerly been a silk manufacturer of some note in the city of Dublin. He had been sworn an United Irishman, in February, 1797, and in the winter following appointed treasurer for the county of Kildare, in which he resided, and also a colonel in the rebel army. This person, whether moved by remorse and returning love for his country, or by other motives, it is not necessary to inquire, disclosed to government, about the latter end of February, 1798, the nature and extent of the conspiracy, and a meeting of delegates being summoned for the 12th of March, at the house of Mr. Oliver Bond, he gave information of it, in consequence of which fourteen of the delegates were apprehended, with their secretary, M'Can; and at the same time, Dr. M'Nevin, counsellor Emmett, and some other active members of the societies, were taken into custody. A warrant had been issued against lord Edward Fitzgerald, but he escaped; he was afterwards, however, discovered in the place of his concealment, when, on the police officers entering the room, the unhappy nobleman made a desperate defence: he wounded two of the principal of them, Mr. justice Swan and captain Ryan, dangerously, and was himself so severely wounded, that he languished a few days only before he expired.

The seizure of the delegates gave a fatal blow to all the plans of the United Irishmen. A new directory was chosen, but their proceedings were soon disclosed by another informer a captain Armstrong, who had pretended to enter into the conspiracy, with the intention of discovering their schemes, and betraying them to government. The confusion and alarm into which the rebels were thrown by the discovery of their plots, and apprehending of their leaders, determined them to make a desperate effort, and a general insurrection was resolved on by the military committee, to take place on the 23d of March; but government being perfectly informed of the intentions of the conspirators, caused several of the principal of them to be apprehended; on the 19th and 21st, the city and county of Dublin were proclaimed by the lord lieutenant and council, in a state of insurrection; the guards of the castle, and all the principal objects of attack, were trebled, and the whole city in fact converted into a garrison. The infatuated multitude, however implicitly obedient to the directions they had received from their leaders, rose at the time appointed, in various parts of the country; and, on the 25th, appeared in great force, their number amounting to not less than 15,000, in the neighbourhood of Wexford and Enniscorthy, and attacked and cut in pieces the whole of a party of the North Cork militia, except colonel Foote, and two privates. They then made an attack, on the 28th, on the town of Enniscorthy, which they carried

sword in hand; and on the 30th made themselves masters of Wexford, where they liberated from prison Mr. Beauchamp Bagenal Harvey, who was afterwards nominated to the chief command of their army. Under him, as their general, they attacked the town of New Ross, but were repulsed with great slaughter. They were likewise repulsed in their attacks on some other places. The royal forces, however, suffered a check on the 4th of June, when the strong post of the rebels being attacked by colonel Walpole, he was unfortunately killed in the beginning of the action, and his corps, being in a situation in which it was unable to act, was forced to retire to Arklow. Encouraged by this success, the rebel army, on the 9th, presented itself before Arklow, where general Needham commanded a considerable body of the king's troops; but the position that general had taken, and the dispositions he made, were such, that they were defeated with great loss.

On the 21st of June, general Lake made his grand attack on the strong position of the rebels on Vinegar hill, near Enniscorthy, having gradually collected troops from every part, till he had almost surrounded them. They maintained their ground obstinately, for an hour and a half, but at length fled with precipitation, leaving behind them a great number of killed and wounded, and 13 small pieces of ordnance of different calibres.

Immediately after this action, a large body of the kings forces advanced to Wexford, which general Moore entered so opportunely as to prevent the town from being laid in ashes. The rebels, before they evacuated the town, offered to treat; but general Lake refused to sign any terms with rebels with arms in their hands; though to the deluded multitude he promised pardon, on condition of delivering up their leaders and returning to their allegiance. The rebel troops immediately evacuated the town: their general, Bagenal Harvey, had quitted them soon after the battle of New Ross, but being discovered and taken with some others in a cave, he was tried by a court martial, and executed on the bridge of Wexford.

In the beginning of June, alarming commotions likewise took place in the north of Ireland, and the insurrection soon became almost general in the counties of Down and Antrim; but on the 12th, the rebels received a complete defeat at Ballynahinck, where they lost upwards of 400 men. They fought with great obstinacy, and their leader, Munro, was taken prisoner, and afterwards executed.

The English government, in the mean time, though not dissatisfied with lord Camden, resolved to give Ireland a military lord-lieutenant; and the marquis Cornwallis arrived at Dublin in that capacity, on the 20th of June, and immediately assumed the reins of government. The conduct of his lordship was temperate and judicious. On the 17th of July, he sent a message to the house of commons by lord Castlereah, intimating that he had received his majesty's commands to acquaint them "that he had signified his gracious intention of granting a general pardon for all offences, committed on or before a certain day, upon such conditions, and with such exceptions, as might be compatible with the general safety." But "these offers of mercy to the repentant, were not to preclude measures of vigour against the obstinate."

A special commission was now opened in Dublin, for the trial of the principal delinquents, several of whom were tried and executed. Among them Mr. Oliver Bond was tried, convicted, and condemned, and in his fate the other conspirators began to foresee their own. The rebellion appeared to be completely crushed; the fugitive rebels were every where returning to their allegiance, and delivering up their arms, and no hope remained of any effectual assistance from France. In this situation, a negotiation was opened between the Irish government and the state prisoners, the issue of which was, that government consented to pardon Mr. Bond, and desist from any further prosecution of the leaders of the conspiracy, who, on their parts, engaged to make full confession of all the proceedings and plans of the society; after which they were to be permitted to transport themselves to any country not at war with his majesty. The information they communicated, was laid before the Irish house of commons, and has furnished materials for the brief account here given. Mr. Oliver Bond survived his pardon only a few days, and Mr. Arthur O'Connor, Dr. M'Nevin, and the rest, after having been a considerable time confined in Ireland, were removed to prisons in Scotland.

After the failure of the expedition under general Hoche, France, fortunately for Great Britain, made no attempt to assist the Irish insurgents till it was too late; and the aid they then sent was very feeble, and inadequate to the end proposed. On the 22d of August, some frigates and transports from France appeared in Killala bay, and landed about 1000 men, with a quantity of arms and ammunition. The number of insurgents who joined the invaders was not considerable; but the French general Humbert, by his conduct, proved himself an officer of ability, and worthy of command, where there was a fairer prospect of success. He advanced, without loss of time, to Castlebar, where general Lake was collecting his forces, attacked, and compelled him to retreat, with the loss of six pieces of cannon and a few men, after which he advanced towards Tuam; but on the 7th of September, the marquis Cornwallis came up with the French in the vicinity of Castlebar, when they retreated, and the next morning, after a slight resistance, surrendered at discretion. The rebels who had joined them were dispersed, and a great number of them killed or taken.

Another effort was afterwards made by the French, to support, or rather to rekindle, the flames of rebellion in Ireland. On the seventeenth of September, a fleet sailed from France, consisting of one ship of the line, the Hoche, and eight frigates, with troops and ammunition on board, destined for Ireland; but this armament was completely defeated, by the squadron under the command of sir John Borlase Warren.

The few remaining troops of rebels, who were dispersed among the woods and mountains, now successively laid down their arms. A chief, of the name of Holt, at the head of a number of banditti, continued for some time to commit depredations in the mountainous parts of the county of Wicklow; but at last it was believed that he made terms with government, and was permitted to save his life, by relinquishing for ever his native country.

Every estimate of the number of those who lost their lives in this deplorable contest must necessarily be vague and uncertain. Some have stated it at 30,000, while others have swelled it to 100,000, of whom, they say, nine-tenths were of the insurgents; the loss of the royalists being about 10,000 men. Slaughter and desolation have at length procured a kind of peace; but the great problem is to discover by what means the flames of discord may be prevented from bursting out afresh. As the most effectual preventative of a repetition of these calamities, government recommended, and carried into effect, a legislative union of the two kingdoms. A proposition for such an union was submitted to the parliament of England and Ireland on the same day, January 22nd, 1799, and in both houses of the English parliament, the address, which is considered as an approbation of the measure, passed without division. A similar address was carried in the Irish house of lords by a majority of 33, but rejected in the commons by a majority of two, which the next day increased to six against the measure, which was therefore laid aside for the time.

Government, however, by no means totally abandoned it; for in the beginning of the next session on the 15th of January, 1800, the proposition was again submitted to the parliament of Ireland; when the address in the house of lords passed without a debate, and, after an animated discussion in the commons, which lasted till the noon of the following day, was approved by a majority of 42. The articles of this union, which have since been voted, import, "That the kingdoms of Great Britain and Ireland shall, upon the 1st day of January, which shall be in the year of our Lord 1801, and for ever after, be united into one kingdom, by the name of the United Kingdom of Great Britain and Ireland;" "that of the peers of Ireland at the time of the union, four spiritual lords, by rotation of sessions, and 28 temporal peers for life, shall be the number to sit and vote in the house of lords; and that 100 commoners, viz. two for each county of Ireland, two for the city of Dublin, two for the city of Cork, and one for each of the 32 most considerable cities, towns, and boroughs, be the number of the representatives of Ireland in the house of commons of the parliament of the United Kingdom."

It is also provided by these articles "that, for the space of 20 years after the union shall take place, the contribution of Great Britain and Ireland respectively towards the expenditure of the United Kingdom in each year shall be defrayed in the proportion of fifteen parts for Great Britain, and two parts for Ireland," this proportion at the expiration of that time to be subject to revision and regulation from other considerations.

How far this plan of union will prove a remedy for the distressed condition and discontents of the poor, time must discover. At first view it seems difficult to say how a legislative union can remove the cause of the civil commotions which have lately distracted that unfortunate kingdom; how it can lessen religious prejudices, or prevent, what it seems rather calculated to increase, the expenditure of Irish property at a distance from the country whence it is derived. Yet must it not be denied that unity in government has many advantages, and is indeed essentially necessary; and

that a close connection and firm consolidation of the three kingdoms, with an impartial and equal distribution of protection and rights, fairly granted and faithfully maintained, must tend to infuse new life into every part of the united nation, while it adds to the prosperity, the wealth, and the power of the whole.

The treaty of Amiens, that procured a short interval of peace, and the renewal of hostilities in 1803, will be discussed in that part of our work which relates to France.

CHAPTER XVII.

PRESENT STATE OF THE BRITISH EMPIRE——*The Constitution—the King—his Duties and Prerogatives—the Peers—their Titles and Privileges—the Commons—the forms of enacting Laws and transacting other business in Parliament—the Executive Power—Privy Council—Cabinet, &c.—Revenues—Taxes—National Debt—Different species of Stock—Bank of England, &c.—the Army—the Navy—Titles of Honour—Orders of Knighthood, &c.—Laws—Administration of Public Justice—Ecclesiastical establishment of England and Ireland—of Scotland—Catholic and Protestant Dissenters—Jews, Free-thinkers, &c.—Religious and Benevolent Societies—Universities—Public Schools—Literary Societies—Present State of British Literature—Agriculture—Manufactures—Commerce—Population—Present State of the principal Cities and Towns in England, Wales, Scotland, and Ireland.*

WHOEVER wishes to become acquainted with the present state of the British Empire, must have his attention first of all attracted by the nature of that constitution, to the excellencies of which we are indebted for so many blessings, and the security of which it becomes us to watch with the most jealous caution. The term Constitution signifies the form of government which is established in any country or kingdom. The origin of that of Britain we have already traced from the times of our Saxon ancestors, related its progress through different ages, and its many escapes from the most imminent danger of being crushed by the strong hand of monarchial power, or torn to pieces by aristocratical or democratical anarchy. It only remains, therefore, to describe the nature and operation of the three great parts of which it is composed, namely, the king, the lords, spiritual and temporal, and the house of commons, the representatives of the people.

The supreme executive government of Great Britain and Ireland is vested by our constitution in a single person, king or queen; for it is indifferent to which sex the crown descends: the person entitled to it is immediately entrusted with all the ensigns, rights, and prerogatives of sovereign power. To understand the royal rights and authority in Britain, we must consider the king under six distinct views. 1st. With regard to his title. 2nd. To his royal family. 3rd. His councils. 4th. His duties. 5th. His prerogative. 6th. His revenue.

First, His title. The grand fundamental maxim, upon which the right of succession to the throne of these kingdoms depends, is, that the crown, by common law and constitutional custom, is hereditary, and this in a manner peculiar to itself; but that the right

of inheritance may, from time to time, be changed, or limited by act of parliament: under which limitations, the crown still continues hereditary.

On the death of queen Elizabeth, without issue, it became necessary to recur to the other issue of her grandfather, Henry VII. by Elizabeth of York, his queen; whose eldest daughter, Margaret, having married James IV. king of Scotland, king James VI. of Scotland, and of England the first, was the lineal descendant from this alliance. So that in his person, as clearly as in Henry VIII. centered all the claims of the different competitors, from the Norman invasion downward; he being indisputably the lineal heir of William I. And, what is still more remarkable, in his person centered all the right of the Saxon monarchs, which had been suspended from the Norman invasion till his succession; for Margaret, the sister of Edgar Atheling, the daughter of Edward the Outlaw, and grand-daughter of king Edmund Ironside, was the person in whom the hereditary right of the Saxon kings, supposing it not abolished by the conquest, resided. She married Malcolm III. king of Scotland: and Henry II. by a descent from Matilda, their daughter, is generally called the restorer of the Saxon line. But it must be remembered, that Malcolm, by his Saxon queen, had sons as well as daughters; and that the royal family of Scotland, from that time downward, were the offspring of Malcolm and Margaret. Of this royal family, king James I. was the lineal descendant, and therefore united in his person every possible claim, by hereditary right, to the English as well as Scottish throne, being the heir of Egbert and William the Norman.

At the revolution, in 1688, the convention of estates, or representative body of the people, declared, that the misconduct of James II. amounted to an abdication of the government, and that the throne was thereby vacant. In consequence of this vacancy, and from a regard to the antient line, the convention appointed the next protestant heirs of the blood royal of king Charles I. to fill the vacant throne in the old order of succession, with a temporary exception or preference to the person of king William III.

On the impending failure of the protestant line of king Charles I. whereby the throne might have become vacant, the king and parliament extended the settlement of the crown to the protestant line of king James I. viz. to the princess Sophia of Hanover and the heirs of her body, being protestants; and she is now the common stock, from whom the heirs of the crown descend.

The true ground and principle upon which the revolution proceeded, was entirely a new case in politics, which had never before happened in our history, the abdication of the reigning monarch, and the vacancy of the throne thereupon. It was not a defeasence of the right of succession, and a new limitation of the crown by the king and both houses of parliament: it was an act of the nation alone, upon a conviction that there was no king in being; for in a full assembly of the lords and commons, met in convention upon the supposition of this vacancy, both houses came to this resolution, that king James II. having endeavoured to subvert the constitution of the kingdom, by breaking the original contract between king and people, and by the advice of jesuits and other wicked persons, having violated the fundamental laws, and having withdrawn himself out of this kingdom, has abdicated the government, and that the throne is thereby vacant

They held that the misconduct of king James amounted to an endeavour to subvert the constitution, and not an actual subversion or total dissolution of the government. They therefore very prudently voted it to amount to no more than an abdication of the government, and a consequent vacancy of the throne, whereby the government was allowed to subsist, though the executive magistrate was gone, and the kingly office to remain, though James was no longer king. Thus the constitution was kept entire, which, upon every sound principle of government, must have otherwise fallen to pieces, had so principal and constituent a part as the royal authority been abolished, or even suspended.

Hence it is easy to collect, that the title to the crown is at present hereditary, though not quite so absolutely hereditary as formerly, and the common stock, or ancestor, from whom the descent must be derived, is also different. Formerly, the common stock was king Egbert, then William the Conqueror, afterwards, in the time of James I. the two common stocks united, and so continued, till the vacancy of the throne, in 1688: now it is the princess Sophia, in whom the inheritance was vested by the new king and parliament. Formerly the descent was absolute, and the crown went to the next heir, without any restriction; but now, upon the new settlement, the inheritance is conditional, being limited to such heirs only of the body of the princess Sophia, as are protestant members of the church of England, and are married to none but protestants.

Second, His royal family. The first and most considerable branch of the royal family, regarded by the laws of England, is the queen. The queen of England is either queen regent, queen consort, or queen dowager. The queen regent is she who holds the crown in her own right, as the first, and perhaps the second, queen Mary, queen Elizabeth, and queen Anne; and such a one has the same powers, prerogatives, rights, dignities, and duties, as if she had been a king. But the queen consort is the wife of the reigning king; and she, by virtue of her marriage, is participant of divers prerogatives above other women. She is a public person, exempt and distinct from the king; and not like other married women, so closely connected as to have lost all legal or separate existence, so long as the marriage continues. She is of ability to purchase lands, and to convey them; to make leases, and perform other acts of ownership, without the concurrence of her lord: hath separate courts and officers, not only in matters of ceremony, but even of law; may sue and be sued alone, without joining her husband, and hath a separate property in goods as well as lands, and a right to dispose of them by will. The queen hath also many exemptions and minute prerogatives, as well as some pecuniary advantages, which form her distinct revenue. Though she is in all respects a subject, yet, in point of the security of her life and person, she is put upon the same footing with the king. It is equally treason to compass or imagine her death, as that of the king himself; and to violate or defile the queen consort amounts to the same high crime, as well in the person committing the fact, as in the queen herself, if consenting.

A queen dowager is the widow of the king, and as such enjoys most of the privileges which she had when queen consort. No man can marry her without a special licence from the king, and when married to a subject, she still retains her regal dignity.

The prince of Wales, or heir apparent to the crown, and also his royal consort, and

the princess royal, or eldest daughter of the king, are likewise peculiarly regarded by the laws. For to compass or conspire the death of the former, or to violate the chastity of either of the latter, are as much high treason, as to conspire the death of the king, or violate the chastity of the queen. The heir apparent to the crown is usually made prince of Wales and earl of Chester by special creation, but, by being the king's eldest son, he is by inheritance duke of Cornwall.

The rest of the royal family may be considered in two different lights, according to the different senses in which the term is used. The larger sense includes all those who are by any possibility inheritable to the crown. The more confined sense includes only those who are in a certain degree of relation to the reigning prince, and to whom therefore the law pays an extraordinary regard; but after that degree is passed, they fall into the rank of ordinary subjects

No descendant of King George II. under 25 years of age, other than the issue of princesses married into foreign families, is capable of contracting matrimony, without the previous consent of the king, signified under the great seal, and any marriage contracted without such consent is void.

Third, His councils. In Britain, the law, in order to assist the king, hath assigned him a diversity of councils to advise with. The first of these is the high court of parliament. The next is composed of peers of the realm, and may be called together by the king, to impart their advice either in time of parliament, or when there is no parliament in being. Besides this general meeting, it is *usually looked upon to be the right* of each particular peer of the realm, to demand an audience of the king, and to lay before him, with decency and respect, such matters as he shall judge of importance to the public good. A third council belonging to the king, are his judges of the courts of law, for law matters; but his principal council is that which is called the privy council, and of which we shall hereafter more particularly speak.

Fourth, The principal duties of the king are expressed in his oath at his coronation, which is administered by one of the archbishops or bishops of the realm, in the presence of all the people. This coronation oath is conceived in the following terms. The archbishop or bishop shall say, "Will you solemnly promise and swear, to govern the people of this kingdom of England, and the dominions thereunto belonging, according to the statutes in parliament agreed on, and the laws and customs of the same?" The king or queen shall say, "I solemnly promise so to do."

Archbishop or bishop. "Will you, to your power, cause law and justice, in mercy to be executed in all your judgments?" King or queen. "I will."

Archbishop or bishop. "Will you, to the utmost of your power, maintain the laws of God, the true profession of the gospel, and the protestant reformed religion, established by the law? And will you preserve unto the bishops and clergy of this realm, and to the churches committed to their charge, all such rights and privileges, as by the law do or shall appertain unto them, or any of them? King or queen. "All this I promise to do."

After this the king or queen, laying his or her hand upon the holy gospels, shall

say, "The things which I have here before promised, I will perform and keep: so help me God." And then kisses the book.

Fifth, His prerogative. The king of Great Britain, notwithstanding the limitations of the power of the crown, is the greatest monarch reigning over a free people. His power is very great, though he has no right to extend his prerogative beyond the antient limits or boundaries prescribed by the constitution; he can make no new laws, nor raise any new taxes, nor act in opposition to any of the laws, but he can make war or peace; send and receive ambassadors, make treaties of league and commerce, levy armies, and fit out fleets, for the defence of his kingdom, the annoyance of his enemies, or the suppression of rebellion; grant commissions to his officers, both by sea and land, or revoke them at pleasure; dispose of all magazines, castles, &c.; summon the parliament to meet, and when met, prorogue or dissolve it at pleasure; refuse his assent to any bill, though it had passed both houses; which, consequently, by such refusal, has no more force than if it had never been moved; but this is a prerogative that the kings of England have seldom ventured to exercise. He possesses the right of choosing his own council; of nominating all the great officers of state, of the household, and the church; and, in fine, is the fountain of honour, from whom all degrees of nobility and knighthood are derived.

Sixth, His revenue. This is of two kinds, ordinary and extraordinary, and is partly appropriated to the support of his majesty's household, and partly for national purposes; but as the greater part of the revenue is derived from the authority of parliament, it is proper to defer the discussion of it, till we have described the nature and operation of that august assembly.

The parliament is assembled by the king's writs, and its sitting must not be intermitted above three years. Its constituent parts are, the king, sitting there in his royal political capacity, and the three estates of the realm; the lords spiritual, the lords temporal, who sit together with the king in one house, and the commons, who sit by themselves in another.

The king and these three estates together, form the great corporation, or body politic of the kingdom, of which the king is said to be the head, the beginning, and the end. For, upon their coming together, the king meets them, either in person or by representation, without which there can be no beginning of a parliament; he also has alone the power of dissolving them.

The lords spiritual consist of two archbishops and 24 bishops. The lords temporal consist of all the peers of the realm, the bishops not being in strictness held to be such, but merely lords of parliament. Some of the peers set by descent, as do all antient peers; some by creation, as do all the new made ones; others, since the union with Scotland, by election, which is the case of the 16 peers who represent the body of the Scotch nobility. The number of peers is indefinite, and may be increased at will by the power of the crown. Their titles and order of dignity are dukes, marquises, earls, viscounts, and lords or barons.

The commons consist of all such men of any property in the kingdom as have not

seats in the house of lords, every one of whom is supposed to have a voice in parliament, either personally or by his representatives.

The counties are therefore represented by knights, elected by the proprietors of lands; the cities and boroughs are represented by citizens and burgesses, chosen by the mercantile part, or the supposed trading interest of the nation. The number of English representatives is 513, of Scotch 45, of Irish 100, in all 668. And every member, though chosen by one particular district, when elected and returned, serves for the whole realm. For the end of his coming thither is not particular, but general; not merely to serve his constituents, but also the commonwealth, and to advise his majesty, as appears from the writ of summons.

The power and jurisdiction of parliament is so transcendent and absolute, that it cannot be confined, either for causes or persons, within any bounds. It hath sovereign and uncontroulable authority, in making, confirming, enlarging, restraining, abrogating, repealing, reviving, and expounding of laws, concerning matters of all possible denomination, ecclesiastical or temporal, civil, military, maritime, or criminal, this being the place where that absolute despotic power, which must in all governments reside somewhere, is entrusted by the constitution of these kingdoms.

In order to prevent the mischiefs that might arise, by placing this extensive authority in hands that are either incapable or improper to manage it, it is provided that no one shall sit or vote in either house of parliament, unless he be 21 years of age. To prevent innovations in religion or government, it is enacted, that no member shall sit or vote in either house, till he hath, in presence of the house, taken the oaths of allegiance, supremacy, and abjuration, and subscribed and repeated the declaration against transubstantiation, the invocation of the saints, and the sacrifice of the mass. To prevent dangers that may arise to the kingdom from foreign attachments, connections, or dependencies, it is enacted, that no alien, born out of the dominions of the crown of Great Britain, even though he be naturalized, shall be capable of being a member of either house of parliament.

Some of the most important privileges of members of either house are, privilege of speech, of person, of their domestics, and of their lands and goods. As to the first, privilege of speech, it is declared by the statute of 1. W. and M. st. 2. c. 2. as one of the liberties of the people, "that the freedom of speech and debates, and proceedings in parliament, ought not to be impeached or questioned in any court or place out of parliament." And this freedom of speech is particularly demanded of the king in person, by the speaker of the house of commons, at the opening of every new parliament. So are the other privileges of persons, servants, lands, and goods; this includes not only privilege from illegal violence, but also from legal arrests, unless in case of debt, and seizures by process from the courts of law.

The house of lords are attended by the judges of the court of king's bench and common pleas, and such of the barons of the exchequer as are of the degree of the coif, or have been made serjeants at law; as likewise by the masters of the court of chancery; for their advice in point of law, and for the greater dignity of their proceedings.

The speaker of the house of lords is generally the lord chancellor, or lord-keeper of

the great seal, which dignities are commonly vested in the same person. Each peer has a right, when a vote passes contrary to his sentiments, to enter his dissent on the journals of the house, with the reasons for such dissent; which is usually stiled his protest. Upon particular occasions, these protests have been so bold, as to give offence to the majority of the house, and have therefore been expunged from the journals: but this has been thought a violent measure.

The house of commons may be properly styled the grand inquest of Great Britain, empowered to inquire into all national grievances. The peculiar laws and customs of the house of commons relate principally to the raising of taxes, and the elections of members to serve in parliament. With regard to taxes: it is the antient indisputable privilege, and the right of the house of commons, that all grants of subsidies, or parliamentary aids, do begin in their house, and be first bestowed by them; although their grants are not effectual, until they have the assent of the other two branches of the legislature.

The general reason given for this exclusive privilege of the house of commons is, that the supplies are raised upon the body of the people, and therefore it is proper that they alone should have the right of taxing themselves And so reasonably jealous are the commons of this privilege, that herein they will not suffer the other house to exert any power, but that of rejecting; they will not permit the least alteration or amendment to be made by the lords, of the mode of taxing the people by a money-bill. Under this appellation are included all bills by which money is directed to be raised upon the subject, for any purpose, or in any shape whatever; either for the exigencies of government, and collected from the kingdom in general, as the land-tax; or for private benefit, and collected in any particular district, as by turnpikes, parish rates, and the like.

The method of making laws is much the same in both houses. In each house the act of the majority binds the whole: and this majority is declared by votes openly and publicly given; not as at Venice, and many other senatorial assemblies, privately or by ballot. This latter method may be serviceable to prevent intrigues and unconstitutional combinations, but it is impossible to be practised in the house of commons, where every member's conduct is subject to the future censure of his constituents, and therefore should be openly submitted to their inspection.

To bring a bill into the house of commons, if the relief sought by it be of a private nature, it is first necessary to prefer a petition, setting forth the grievance desired to be remedied. This petition must be presented by a member, and, when founded on facts, that may be in their nature disputed, is referred to a committee of members, who examine the matter alleged, and report it to the house; and then (or, otherwise, upon the mere petition) leave is given to bring in the bill. In public matters, the bill is brought in upon motion made to the house, without any petition. (In the house of lords, if the bill begins there, it is, when of a private nature, referred to two of the judges, to examine and report the state of the facts alleged, to see that all necessary parties consent, and to settle all points of technical propriety.) This is read a first time, and, at a convenient distance, a second time; and after each reading, the speaker explains to

the house the substance of the bill, and puts the question, whether it shall proceed any farther. The introduction of the bill may be opposed, as the bill itself may at either of the readings; and, if the opposition succeed, the bill must be dropt for that session.

After the second reading, it is committed, that is, referred to a committee; which is either selected by the house in business of small importance; or else, if the bill is a matter of great or national consequence, the house resolves itself into a committee of the whole house. A committee of the whole house is composed of every member; and, to form it, the speaker quits the chair, (another member being appointed chairman), and may sit and debate as a private member. In these committees, the bill is debated, clause by clause, amendments made, the blanks filled up, and sometimes the bill entirely new-modelled.

After it has gone through the committee, the chairman reports it to the house, with such amendments as the committee have made; and then the house re-consider the whole bill again, and the question is repeatedly put upon every clause and amendment. When the house have agreed or disagreed to the amendments of the committee, and sometimes added new amendments of their own, the bill is then ordered to be engrossed, or written in a strong gross hand, on one or more long rolls of parchment sewed together. When this is finished, it is read a third time, and amendments are sometimes then made to it; and if a new clause be added, it is done by tacking a separate piece of parchment on the bill, which is called a rider. The speaker then again explains the contents; and, holding it up in his hands, puts the question, whether the bill shall pass. If this be agreed to, the title to it is then settled. After this, one of the members is directed to carry it to the lords, and desire their concurrence; who, attended by several more, carries it to the bar of the house of peers, and there delivers it to their speaker, who comes down from his woolsack to receive it. It there passes through the forms, as in the other house (excepting engrossing, which is already done), and if rejected, no more notice is taken, but it passes sub silentio, to prevent unbecoming altercations. But if it be agreed to, the lords send a message by two masters in chancery (or, sometimes, in matters of high importance, by two of the judges) that they have agreed to the same: and the bill remains with the lords, if they have made no amendment. But if any amendments are made, such amendments are sent down with the bill, to receive the concurrence of the commons. If the commons disagree to the amendments, a conference usually follows, between members deputed from each house; who, for the most part, settle and adjust the difference: but if both houses remain inflexible, the bill is dropped. If the commons agree to the amendments, the bill is sent back to the lords, by one of the members, with a message to acquaint them therewith. The same forms are observed, mutatis mutandis, when the bill begins in the house of lords.

But when an act of grace or pardon is passed, it is first signed by his majesty, and then read once only in each of the houses, without any new engrossing or amendment. And when both houses have done with any bill, it is deposited in the house of peers, to wait the royal assent; except in the case of a money-bill, which, after receiv-

ing the concurrence of the lords, is sent back to the house of commons. It may be necessary here to acquaint the reader, that both in the houses and in their committees, the slightest expression, or most minute alteration, does not pass till the speaker or the chairman puts the question; which, in the house of commons, is answered by aye or no; and in the house of peers, by content or not content.

The giving the royal assent to bills is a matter of great form. When the king is to pass bills in person, he appears on his throne in the house of peers, in his royal robes, with the crown on his head, and attended by his great officers of state, and heralds. A seat on the right hand of the throne, where the princes of Scotland, when peers of England, formerly sat, is reserved for the prince of Wales. The other princes of the blood sit on the left hand of the king, and the chancellor on a close bench, removed a little backwards.

The viscounts and temporal barons, or lords, face the throne, on benches, or wool-packs, covered with red cloth or baize. The bench of bishops runs along the house, to the bar on the right hand of the throne; as the dukes and earls do on the left. The chancellor and judges, on ordinary days, sit upon wool-packs, between the barons and the throne. The common opinion is, that the house sitting on wool is symbolical of wool being formerly the staple commodity of the kingdom. Many of the peers, on solemn occasions, appear in their parliamentary robes. None of the commons have any robes, excepting the speaker, who wears a long black silk gown; and when he appears before the king, it is trimmed with gold.

The royal assent may be given two ways; first in person. When the king sends for the house of commons to the house of peers, the speaker carries up the money-bill or bills in his hand; and, in delivering them, he addresses his majesty in a solemn speech, in which he seldom fails to extol the generosity and loyalty of the commons, and to tell his majesty how necessary it is to be frugal of the public money. It is upon this occasion, that the commons of Great Britain appear in their highest lustre. The title of all bills that have passed both houses are read; and the king's answer is declared by the clerk of the parliament in Norman French. If the king consents to a public bill, the clerk usually declares, le roy le veut, "the king wills it so to be:" if to a private bill, soit fait comme il est desiré, "be it as it is desired." If the king refuses his assent, it is in the gentle language of, le roy s'avisera, "the king will advise upon it." When a money-bill is passed, it is carried up and presented to the king, by the speaker of the house of commons, and the royal assent is thus expressed, le roy remercie ses loyal subjects, accepte leur benevolence, et aussi le veut, "the king thanks his loyal subjects, accepts their benevolence, and wills it so to be." In case of an act of grace, which originally proceeds from the crown, and has the royal assent in the first stage of it, the clerk of the parliament thus pronounces the gratitude of the subject: les prelats, seigneurs, et commons, en ce present parliament assemblies, au nom de tout vos autres subjects, remercient très humblement votre majesté, et prient à Dieu vous donner en santé bonne vie et longue: "the prelates, lords, and commons, in this present parliament assembled, in the name of all your other subjects, most humbly thank your majesty, and pray to God to grant you in health and wealth long to live."

Second, By the statute 33 Henry VIII. c. 21. the king may give his assent by letters patent, under his great seal, signed with his hand, and notified, in his absence, to both houses assembled together in the high house, by commissioners, consisting of certain peers named in the letters. And, when the bill has received the royal assent in either of these ways, it is then, and not before, a statute, or act of parliament.

The statute or act is placed among the records of the kingdom; there needing no formal promulgation to give it the force of a law, as was necessary by the civil law with regard to the emperor's edicts; because every man in England is, in judgment of law, party to the making of an act of parliament, being present thereat by his representatives. However, copies thereof are usually printed at the king's press, for the information of the whole land.

From the above general view of the English constitution. it appears that no security for its permanency, which the wit of man can devise, is wanting. If it should be objected, that parliaments may become so corrupted, as to give up or betray the liberties of the people, the answer is, that parliaments, as every other body politic, are supposed to watch over their political existence, as a private person does over his natural life. If a parliament were to act in that manner, it must become felo de se, an evil that no human provisions can guard against. But these are great resources of liberty in England; and though the constitution has been even overturned, and sometimes dangerously wounded, yet its own innate powers have recovered and still preserve it.

The king of England, besides his high court of parliament, has subordinate officers and ministers to assist him, and who are responsible for their advice and conduct. They are made by the king's nomination, without either patent or grant; and, on taking the requisite oaths, they become immediately privy-counsellors during the life of the king that chooses them, but subject to removal at his pleasure.

The duty of a privy-counsellor appears from the oath of office, which consists of seven articles: 1st. To advise the king, according to the best of his cunning and discretion. 2nd. To advise for the king's honour, and good of the public, without partiality through affection, love, need, doubt, or dread. 3rd. To keep the king's counsel secret. 4th. To avoid corruption. 5th. To help and strengthen the execution of what shall be there resolved. 6th. To withstand all persons who would attempt the contrary. And, lastly, in general, 7th. To observe, keep, and do all that a good and true counsellor ought to do to his sovereign lord.

As no government can be so complete as to be provided with laws that may answer every unforeseen emergency, the privy-council, in such cases, can supply the deficiency. It has been even known, that, upon great and urgent occasions, such as that of a famine, or the dread of one, they can supersede the operation of the law, if the parliament is not sitting; but this is considered as illegal, and an act of parliament must pass for the pardon and indemnification of those concerned.

The office of secretary of state was formerly divided into a southern and a northern department. The southern contained France, Spain, Portugal, Italy, the Swiss cantons, Constantinople, and, in short, all the states in the southern parts. The northern com-

prehended the different states of Germany, Prussia, Poland, Russia, Sweden, Denmark, Holland, Flanders, and the Hanseatic towns. This distinction is now abolished; and there is one secretary for foreign affairs, and another for the home department. During the American war, there was a third secretary of state, whose office was revived in 1794, by the title of secretary for the war department.

The cabinet council is a committee of the privy-council, consisting of a select number of ministers and noblemen, according to the king's opinion of their integrity and abilities, or attachment to the views of the court; but though its operations are powerful and extensive, a cabinet-council is not essential to the constitution of England.

This observation naturally leads us to mention the person who is so well known by the name of the first minister; a term unknown to the English constitution, though the office, in effect, is perhaps necessary. The constitution points out the lord high chancellor as minister; but the affairs of his own court give him sufficient employment. When the office of the first lord of the treasury is united with that of chancellor of the exchequer (offices which we shall explain hereafter) in the same person, he is considered as first minister The truth is, his majesty may make any of his servants his first minister. But though it is no office, yet there is a responsibility annexed to the name and common repute, that renders it a post of difficulty and danger. We shall now take a short review of the nine great officers of the crown, who, by their posts, take place next to the princes of the royal family and the two primates.

The first is the lord high steward of England. This is an office very antient, and formerly was hereditary, or at least for life: but now, and for centuries past, it is exercised only occasionally; that is, at a coronation, or to sit as a judge on a peer or peeress, when tried for a capital crime. In coronations, it is held for that day only, by some high nobleman. In cases of trials, it is exercised generally by the lord chancellor, or lord keeper, whose commission as high steward ends with the trial, by breaking his white rod, the badge of his office.

The lord high chancellor presides in the court of chancery, to moderate the severities of the law, in all cases where the property of the subject is concerned; and he is to determine according to the dictates of equity and reason. He is an officer of the greatest weight and power of any now subsisting in the kingdom, and is superior in precedency to every temporal lord. He is a privy-counsellor by his office; and, according to some, prolocutor of the house of lords by prescription. To him belongs the appointment of all justices of the peace; he is visitor, in right of the king, of all hospitals and colleges of the king's foundation, and patron of all the king's livings under the value of 20*l.* per annum in the king's books. He is the general guardian of all infants, ideots, and lunatics, and hath the superintendance of all charitable uses in the kingdom, over and above the extensive jurisdiction which he exercises in his judicial capacity in the court of chancery.

The post of lord high treasurer has of late been vested in commission, consisting of five persons, who are called lords of the treasury; but the first commissioner is supposed to possess the power of lord high treasurer. He has the management and charge

of all the revenues of the crown kept in the exchequer; as also the letting of the leases of all crown lands, and the gift of all places belonging to the customs in the several ports of the kingdom.

The lord president of the council was an officer formerly of great power, and hath precedence next after the lord chancellor and lord treasurer. His duty is to propose all the business transacted at the council-board, and to report to the king, when his majesty is not present, all its debates and proceedings. It is a place of great dignity as well as difficulty, on account of the vast number of American and West Indian causes, captures, and the like affairs, that come before the board; all which may be abridged, to the vast convenience of the subject, by an able president.

The office of lord privy-seal consists in his putting the king's seal to all charters, grants, and the like, which are signed by the king, in order to their passing the great seal; and he is responsible, if he should apply the privy-seal to any thing against the law of the land.

The office of lord great chamberlain of England is hereditary in the duke of Ancaster's family. He attends the king's person on his coronation, to dress him; he has likewise charge of the house of lords during the sitting of parliament; and of fitting up Westminster-hall for coronations, trials of peers, or impeachments.

The office of lord high constable has been disused since the attainder and execution of Stafford, duke of Buckingham, in the year 1521, but is occasionally revived for a coronation.

The duke of Norfolk is hereditary earl marshal of England. Before England became so commercial a country, as it has been for a hundred years past, this office required great abilities, learning, and knowledge of the English history, for its discharge. In war time he was judge of army causes, and decided according to the principles of the civil law.

If the cause did not admit of such a decision, it was left to a personal combat, which was attended with a vast variety of ceremonies, the arrangement of which, even to the smallest trifle, fell within the marshal's province. To this day, he or his deputy regulates all points of precedency, according to the archives kept in the herald's office, which is entirely within his jurisdiction. He directs all solemn processions, coronations, proclamations, general mournings, and the like.

The office of lord high admiral of England is now likewise held by commission, and is equal in its importance to any of the preceding, especially since the increase of the British naval power. The English admiralty is a board of direction as well as execution, and is in its proceedings independent of the crown itself. All trials upon life and death, in maritime affairs, are appointed and held under a commission immediately issuing from that board; and the members must sign even the death-warrants for execution; but it may be easily conceived, that, as they are removable at pleasure, they do nothing that can clash with the prerogative of the crown, and conform themselves to the directions they receive from his majesty. The board of admiralty regulates the whole naval force of the realm, and names all its officers, or confirms them when named: so that its jurisdiction is very extensive. The commissioners appoint vice-admi-

rals under them: but an appeal from them lies to the high court of admiralty, which is of a civil nature.

This court is held in London; and all its processes and proceedings run in the lord high admiral's name, or those of the commissioners, and not in that of the king. The judge of this court is commonly a doctor of the civil law, and its proceedings are according to the method of the civil law: but all criminal matters, relating to piracies, and other capital offences committed at sea, are tried and determined according to the laws of England, by witnesses and a jury, ever since the reign of Henry VIII.

Revenues of the British government. The king's ecclesiastical revenues consist in, 1st. The custody of the temporalities of vacant bishoprics; from which he receives little or no advantage. 2nd. Corodies and pensions, formerly arising from allowances of meat, drink, and clothing, due to the king from an abbey or monastery, and which he generally bestowed upon favourite servants; and his sending one of his chaplains to be maintained by the bishop, or to have a pension bestowed upon him till the bishop promoted him to a benefice. These corodies are due of common right, but now disused. 3rd. Extra-parochial tithes. 4th. The first fruits and tenths of beneficies. But such has been the bounty of the crown to the church, that these four branches now afford little or no revenue.

The king's ordinary temporal revenue consists in, 1st. The demesne lands of the crown, which at present are contracted within a narrow compass. 2nd. The hereditary excise: being part of the consideration, for the purchase of his feudal profits, and the prerogative of purveyance and pre-emption. 3rd. An annual sum issuing from the duty on wine licences; being the residue of the same consideration. 4th. His forests. 5th. His courts of justice, &c. In lieu of all which, 900,000*l.* per annum is now granted for the support of his civil list.

The extraordinary grants are usually called by the synonymous names of aids, subsidies, and supplies, and are granted, as has been before hinted, by the commons of Great Britain in parliament assembled; who, when they have voted a supply to his majesty, and settled the quantum of that supply, usually resolve themselves into what is called a committee of ways and means, to consider of the ways and means of raising the supply so voted. And in this committee, every member (though it is looked upon as the peculiar province of the chancellor of the exchequer) may propose such scheme of taxation as he thinks will be least detrimental to the public. The resolutions of this committee (when approved by a vote in the house) are in general esteemed to be, as it were, final and conclusive. For, though the supply cannot be actually raised upon the subject, till directed by an act of the whole parliament, yet no monied man will scruple to advance to the government any quantity of ready cash, if the proposed terms be advantageous, on the credit of the bare vote of the house of commons, though no law be yet passed to establish it.

The annual taxes are, 1st. The land tax, or the antient subsidy raised upon a new assessment. 2nd. The malt tax, being an annual excise on malt, mum, cider, and perry.

The perpetual taxes are, 1st, The customs, or tonnage and poundage of all merchandize, exported or imported. 2nd. The excise duty, or inland imposition, on a great variety of commodities. 3rd. The salt duty. 4th. The post office, or duty for the carriage of letters. 5th. The stamp duty on paper, parchment, &c. 6th. The duty on houses and windows. 7th. The duty on licences for hackney coaches and chairs. 8th. The duty on offices and pensions.

The gross receipt of these annual and permanent taxes, including the balances of the preceding year, amounted, in the year 1797, according to the report of the Select Committee of Finance to the following sums.

				Charges of management.		
	£.	s.	d.	£.	s.	d.
Customs	6,527,882	19	3¼	416,627	2	11¼
Excise, including malt, annually	12,038,218	5	9	535,128	1	10
Stamps	2,262,568	12	8	100,903	13	6
Land and assessed taxes	3,485,341	16	10	150,906	1	7¼
Salt	548,333	0	6¼	33,301	4	2¼
Post office	1,109,179	1	10	296,279	4	5½
One shilling in the pound on pensions	36,038	14	10¼	578	2	6
Sixpence in the pound on ditto	50,538	6	3	841	14	1
Hackney coaches	26,365	13	1	2,255	0	11
Hawkers and pedlars	8,219	9	6	2,915	13	0

The net produce of all these taxes, deducting the balances of the preceding year, repayments on over entries, drawbacks, bounties in nature of drawbacks, and other allowances on the customs, excise, stamps, and salt, is stated, by the same committee, to have amounted, in that year, to 18,720,093*l.*; and the whole of the permanent revenue to 20,508,000*l.* How these immense sums are appropriated is next to be considered: and this is, first and principally, to the payment of the interest of the national debt.

In order to take a clear and comprehensive view of the nature of this national debt, it must first be premised, that after the revolution, when our new connexions with Europe introduced a new system of foreign politics, the expences of the nation, not only in settling the new establishment, but maintaining long wars, as principals on the continent, for the security of the Dutch barrier, reducing the French monarchy, settling the Spanish succession, supporting the house of Austria, maintaining the liberties of the Germanic body, and other purposes, increased to an unusual degree; insomuch that it was not thought adviseable to raise all the expences of any one year by taxes to be levied within that year, lest the unaccustomed weight of them should create murmurs among the people.

It was therefore the bad policy of the times to anticipate the revenues of their posterity; by borrowing immense sums for the current services of the state, and to lay no more taxes upon the subject than would suffice to pay the annual interest of the sums so borrowed: by this means converting the principal debt into a new species of property, transferable

from one man to another, at any time and in any quantity; a system which seems to have had its original in the state of Florence, A. D. 1344; which government then owed about 60,000*l.* sterling, and being unable to pay it, formed the principal into an aggregate sum, called metaphorically a mount or bank; the shares whereof were transferable, like our stocks. This laid the foundation of what is called the national debt; for a few long annuities, created in the reign of Charles II. will hardly deserve that name; and the example then set, has been so closely followed since, that the capital of the funded debt, British and foreign, on the 1st of February, 1799, amounted to 465,152,531*l.* and the annual charge of it to 19,552,037*l.*

Of this funded debt, the commissioners for buying up the national debt had redeemed, on the 1st of February, 1799, 37,381,771*l.* The unfunded, at the same time, amounted to 15,295,674*l.*

To check, in some measure, the too rapid accumulation of a debt, already so enormous, a part of the supplies for the years 1798 and 1799, have been raised within the year. In 1798, a voluntary subscription was entered into for the service of government, which produced about 1,500,000*l.*; and the taxes, called the assessed taxes, were trebled, and in some instances quadrupled, with allowance of relief in certain cases: these produced about 5,000,000*l.* In the year 1799, an act passed, for levying a tenth of all income, upwards of 200*l.* with a tax, according to a certain scale on all income from 200*l.* to 60*l.* per annum.

The total expenditure of the year 1797, for the interest of the public debt, the civil list, the army, navy, foreign loans and remittances, pensions, bounties, extraordinary and secret services, &c. amounted, according to the report of the Select Committee of Finance, to 52,105,603*l.* 18*s.* $2\frac{3}{4}$*d.*; and the total of the ordinary revenue and extraordinary resources, including a lottery and a loan of 27,000,000*l.* to 55,020,890*l.* 1*s.* $0\frac{1}{4}$*d.*

The produce of the several taxes before mentioned were originally separate and distinct funds; being securities for the sums advanced on each several tax, and for them only. But at last it became necessary, in order to avoid confusion, as they multiplied yearly, to reduce the number of these separate funds, by uniting and blending them together, superadding the faith of parliament, for the general security of the whole. So that there are now only three capital funds of any account: the aggregate fund; the general fund, so called from such union and addition; and the South Sea fund; being the produce of the taxes appropriated to pay the interest of such part of the national debt, as was advanced by that company and its annuitants: whereby the separate funds, which were thus united, are become mutual securities for each other; and the whole produce of them, thus aggregated, liable to pay such interest or annuities as were formerly charged upon each distinct fund; the faith of the legislature being moreover engaged to supply any casual deficiencies.

The customs, excises, and other taxes, which are to support these funds, depending on contingencies, upon exports, imports, and consumption, must necessarily be of a very uncertain amount: but they have always been considerably more than sufficient to answer the charge upon them. The surplusses, therefore, of the three great national

funds, the aggregate, general, and South Sea funds, over and above the interest and annuities charged upon them, are directed by statute 3 Geo. I. c. 7, to be carried together, and to attend the disposition of parliament; and are usually denominated the sinking fund, because originally destined to be held sacred, and to be applied inviolably to the redemption of the national debt. To this have been since added many other entire duties, granted in subsequent years; and the annual interest of the sums borrowed on their respective credits, is charged on, and payable out of the produce of the sinking fund. However, the net surplusses and savings, after all deductions paid, amount, annually, to a very considerable sum. For as the interest on the national debt has been at several times reduced (by consent of the proprietors, who had their option either to lower their interest, or be paid their principal), the savings from the appropriated revenues must needs be extremely large. On this sinking fund depends, in a great measure, our hopes of discharging or moderating our incumbrances; and therefore the prudent application of the large sums now arising from this fund, is a point of the utmost importance, and well worthy the serious attention of parliament.

Between the years 1727 and 1732, several encroachments were made upon the sinking fund; and in the year 1733, 500,000*l.* was taken from it by sir Robert Walpole, under pretence of easing the landed interest. The practice of alienating the sinking fund being thus began, has continued; and in 1736, it was anticipated and mortgaged; and every subsequent administration has broken in upon it, thus converting this excellent expedient for saving the kingdom, into a supply for the worst of purposes.

In some years the sinking fund has produced from two to three millions per annum, and if only 1,212,000*l.* of it had been inviolably applied to the redemption of the public debts, from the year 1733, instead of only 8,500,000*l.* paid off by it, as is the case at present, 160,000,000*l.* would have been paid, and the nation have been extricated and saved.

Different schemes have been formed for paying the public debts: but no method can be so expeditious and effectual, as an unalienable sinking fund, as this money is improved at compound interest, and therefore in the most perfect manner: but money procured by a loan bears only simple interest. "A nation, therefore, whenever it applies the income of such a fund to current expences, rather than the redemption of its debts, chooses to lose the benefit of compound interest, in order to avoid paying simple interest, and the loss in this case is equal to the difference between the increase of money at compound and simple interest."

No permanent provision has ever been made for the progressive and permanent payment of this immense debt, until 1786; when parliament had the wisdom and the firmness to pass an act for vesting unalienably, in commissioners, the sum of 1,000,000*l.* annually; in which act every possible precaution was taken that could be devised for preventing the surplus from being diverted, at any future time, and for carrying to the account of the commissioners, for the purposes of the act, the interest of such stock as should be purchased, and such temporary annuities as should fall under the pro-

visions of this act: 37,381,771*l.* of the capital of the debt had been purchased in February, 1799.

Before any part of the aggregate fund (the surplusses whereof are one of the chief ingredients that form the sinking fund) can be applied to diminish the principal of the public debt, it stands mortgaged by parliament to raise an annual sum for the maintenance of the king's household and the civil list. For this purpose, in the late reigns, the produce of certain branches of the excise and customs, the post-office, the duty on wine-licences, the revenues of the remaining crown-lands, the profits arising from courts of justice (which articles include all the hereditary revenue of the crown), and also a clear annuity of 120,000*l.* in money, were settled on the king for life, for the support of his majesty's household, and the honour and dignity of the crown. And as the amount of these several branches were uncertain (though in the last reign they were computed to have sometimes raised almost a million), if they did not raise annually to 800,000*l.* the parliament engaged to make up the deficiency. But his present majesty having, soon after his accession, spontaneously signified his assent, that his own hereditary revenues might be so disposed of, as might best conduce to the utility and satisfaction of the public, and having accepted the limited sum of 800,000*l.* (now increased to 900,000*l.*) per annum, for the support of his civil list, the said hereditary and other revenues are now carried into and made part of the aggregate fund: and the aggregate fund is charged with the payment of the annuity to the crown. The expences defrayed by the civil list are those that, in any shape, relate to civil government, as the expences of the household, all salaries to officers of state, to the judges, and every one of the king's servants; the appointments to foreign ambassadors, the maintenance of the queen and royal family, the king's private expences, or privy purse, and other very numerous outgoings, as secret service money, pensions, and other bounties. These, sometimes, have so far exceeded the revenues, appointed for that purpose, that application has been made to parliament to discharge the debts contracted on the civil list, which is properly the whole of the king's revenues, in his own distinct capacity; the rest being rather the revenue of the public or its creditors, though collected and distributed again in the name and by the officers of the crown.

In order to give a clear idea of the money transactions of the several companies, it is proper we should say something of money in general, and particularly of paper-money, and the difference between that and the current specie. Money is the standard of the value of all the necessaries and accommodations of life; and paper-money is the representative of that standard to such a degree, as to supply its place, and to answer all the purposes of gold and silver coin. Nothing is necessary to make this representative of money supply the place of specie, but the credit of that office or company who delivers it; which credit consists in its always being ready to turn it into specie, whenever required. This is exactly the case of the Bank of England; the notes of this company are of the same value as the current coin, as they may be turned into it whenever the possessor pleases. From hence, as notes are a kind of money, the counterfeiting them is punished with death, as well as coining.

The method of depositing money in the bank, and exchanging it for notes (though they bear no interest), is attended with many conveniences, as they are not only safer than money in the hands of the owner himself, but as the notes are more portable, and capable of a much more easy conveyance, since a bank-note for a very large sum may be sent by the post, and, to prevent the designs of robbers, may without damage, be cut in two, and sent at two several times. Or bills, called bank-post-bills, may be had, by application to the bank, which are particularly calculated to prevent losses by robberies, they being made payable to the order of the person who takes them out, at a certain number of days after sight; which gives an opportunity to stop bills at the bank, if they should be lost, and prevents their being so easily negotiated by strangers as common bank-notes are: and whoever considers the hazard, the expence, and trouble, there would be in sending large sums of gold and silver to and from distant places, must also consider this as a very singular advantage. Besides which, another benefit attends them; for if they are destroyed by time, or other accidents, the bank will, on oath being made of such accident, and security being given, pay the money to the person who was in possession of them.

Bank-notes differ from all kinds of stock in these three particulars; 1st. They are always of the same value. 2nd. They are paid off without being transferred: and, 3rd. They bear no interest; while stocks are a share in a company's fund, bought without any condition of having the principal returned.

India bonds indeed (by some persons, though erroneously, denominated stock) are to be excepted; they being payable at six months notice, either on the side of the company, or of the possessor

By the word stock was originally meant a particular sum of money contributed to the establishing a fund, to enable a company to carry on a certain trade, by means of which the person became a partner in that trade, and received a share in the profit made thereby, in proportion to the money employed.

But this term has been extended farther, though improperly, to signify any sum of money, which has been lent to the government, on condition of receiving a certain interest till the money is repaid, and which makes a part of the national debt. As the security both of the government and the public companies is esteemed preferable to that of any private person; as stock is negotiable, and may be sold at any time; and as the interest is always punctually paid when due; they are enabled to borrow money at a lower interest than what might be obtained from lending it to private persons, where there is often some danger of losing both principal and interest.

But as every capital stock or fund of a company is raised for a particular purpose, and limited by government to a certain sum, it necessarily follows, that, when that fund is completed, no stock can be bought of the company; though shares, already purchased, may be transferred from one person to another. This being the case, there is frequently a great disproportion between the original value of the shares, and what is given for them when transferred; for if there are more buyers than sellers, a person who is indifferent about selling, will not part with his share without a considerable

profit to himself; and, on the contrary, if many are disposed to sell, and few inclined to buy, the value of such shares will naturally fall, in proportion to the importance of those who want to turn their stock into specie.

This observation may serve to give our readers some idea of the nature of that unjustifiable and dishonest practice, called stock-jobbing, the mystery of which consists in nothing more than this: the persons concerned in that practice, who are denominated stock-jobbers, make contracts to buy or sell, at a certain distant time, a certain quantity of some particular stock; against which time they endeavour, according as their contract is, either to raise or lower such stock, by spreading rumours and fictitious stories, in order to induce people either to sell out in a hurry, and consequently cheap, if they are to deliver stock; or to become unwilling to sell it, and consequently to make it dearer, if they are to receive stock.

The persons who make these contracts are not in general possessed of any real stock; and when the time comes that they are to receive or deliver the quantity they have contracted for, they only receive or pay such a sum of money as makes the difference between the price the stock was at when they made the contract, and the price it happens to be at when the contract is fulfilled; and it is no uncommon thing for persons not worth 100*l* to make contracts for the buying or selling 100,000*l*. stock. In the language of Exchange-Alley, the buyer is, in this case, called the bull, and the seller the bear; one is for raising or tossing up, and the other for lowering or trampling upon the stock.

Besides these, there is another set of men, who, though of a higher rank, may properly enough come under the same denomination. These are the monied men, who are dealers in stock, and contractors with the government, whenever any money is to be borrowed. These, indeed, are not fictitious, but real buyers and sellers of stock; but by raising false hopes, or creating groundless fears, by pretending to buy or sell large quantities of stock on a sudden, by using the fore-mentioned set of men as their instruments, and other similar practices, they are enabled to raise or fall stocks one or two per cent. at pleasure.

However, the real value of one stock above another, on account of its being more profitable to the proprietors, or any thing that will really, or only in imagination, affect the credit of a company, or endanger the government by which that credit is secured, must naturally have a considerable effect on the stocks. Thus, with respect to the interest of the proprietors, a share in the stock of a trading company, which produces 5*l*. or 6*l*. per cent. per annum, must be more valuable than an annuity with government security, that produces no more than 3*l*. or 4*l*. per cent. per annum: and consequently such stock must sell at a higher price than such an annuity. Though it must be observed, that a share in the stock of a trading company, producing 5*l*. or 6*l*. per cent. per annum, will not fetch so much money at market as a government annuity producing the same sum, because the security of the company is not reckoned equal to that of the government, and the continuance of their paying so much per annum is more precarious, as their dividend is, or ought to be, always in proportion to the profits of their trade.

The company of the bank was incorporated by parliament, in the 5th and 6th years of king William and queen Mary, by the name of the governors and company of the bank of England, in consideration of the loan of 1,200,000*l.* granted to the government; for which the subscribers received almost 8*l.* per cent. By this charter, the company are not to borrow under their common seal, unless by act of parliament; they are not to trade, or suffer any person in trust for them to trade, in any goods and merchandize; but they may deal in bills of exchange, in buying or selling bullion, and foreign gold and silver coin.

By an act of parliament, passed in the 8th and 9th years of William III. they were empowered to enlarge their capital stock to 2,201,171*l.* 10*s.* It was then also enacted, that bank stock should be a personal, and not a real estate; that no contract, either in word or writing, for buying or selling bank stock, should be good in law, unless registered in the books of the bank within seven days, and the stock transferred in fourteen days; and that it should be felony, without benefit of clergy, to counterfeit the common seal of the bank, or any sealed bank-bill, or bank-note, or to alter or erase such bills or notes.

By another act, passed in the 7th of queen Anne, the company were empowered to augment their capital to 4,402,343*l.* and then they advanced 400,000*l.* more to the government; and in 1714, they advanced another loan of 1,500,000*l.*

In the third year of the reign of king George I. the interest of their capital stock was reduced to 5*l.* per cent. when the bank agreed to deliver up as many exchequer bills as amounted to 2,000,000*l.* and to accept an annuity of 100,000*l.*; and it was declared lawful for the bank to call from their members in proportion to their interests in their capital stock such sums of money as in general court should be found necessary. If any member should neglect to pay his share of monies so called for, at the time appointed by notice in the London gazette, and fixed upon the Royal Exchange, it should be lawful for the bank not only to stop the dividend of such a member, and to apply it toward payment of the money in question, but also to stop the transfers of the share of such defaulter, and to charge him with the interest of 5*l.* per cent. per annum, for the money so omitted to be paid; and if the principal and interest should be three months unpaid, the bank should then have power to sell so much of the stock belonging to the defaulter, as would satisfy the same.

After this the bank reduced the interest of the 2,000,000*l.* lent to the government from 5*l.* to 4*l.* per cent. and purchased several other annuities, which were afterwards redeemed by the government, and the national debt, due to the bank, reduced to 1,600,000*l.* But in 1742, the company engaged to supply the government with 1,600,000*l.* at 3*l.* per cent. which is now called the three per cent. annuities; so that the government was now indebted to the company 3,200,000*l.* the one half carrying 4*l.* and the other 3*l.* per cent

In the year 1746, the company agreed that the sum of 986,800*l.* due to them in the exchequer bills unsatisfied, on the duties for licences to sell spirituous liquors by retail, should be cancelled, and in lieu thereof, to accept an annuity of 39,442*l.* the interest of

that sum at 4*l.* per cent. The company also agreed to advance the farther sum of 1,000,000*l.* into the exchequer, upon the credit of the duties arising by the malt and land tax, at 4*l.* per cent. for exchequer bills to be issued for that purpose, in consideration of which, the company were enabled to augment their capital with 986,800*l.*; the interest of which, as well as that of the other annuities, was reduced to three and a half, per cent. till the 25th of December, 1757, and from that time to carry only three per cent.

And in order to enable them to circulate the said exchequer bills, they established what is now called bank circulation; the nature of which not being well understood, we shall take the liberty to be a little more particular in its explanation than we have been with regard to the other stocks.

The company of the bank are obliged to keep cash sufficient to answer not only the common, but also any extraordinary demand that may be made upon them; and whatever money they have by them over and above the sum supposed necessary for these purposes, they employ in what may be called the trade of the company; that is to say, in discounting bills of exchange, in buying gold and silver, and in government securities, &c. But when the bank entered into the above-mentioned contract, as they did not keep unemployed a larger sum of money than what they deemed necessary to answer their ordinary and extraordinary demands, they could not conveniently take out of their current cash so large a sum as a million, with which they were obliged to furnish the government, without either lessening that sum they employed in discounting, buying gold and silver, &c. (which would have been very disadvantageous to them,) or inventing some method that should answer all the purposes of keeping the million in cash. The method which they chose, and which fully answers their end, was as follows.

They opened a subscription, which they renew annually, for a million of money, wherein the subscribers advance 10*l.* per cent. and enter into a contract to pay the remainder, or any part thereof, whenever the bank shall call upon them, under the penalty of forfeiting the 10*l.* per cent. so advanced; in consideration of which, the bank pays the subscribers four per cent. for the money paid in, and one-fourth per cent. for the whole sum they agree to furnish; and in case a call should be made upon them for the whole or any part thereof, the bank farther agrees to pay them at the rate of five per cent. per annum for such sum, till they repay it, which they are under an obligation to do at the end of the year. By this means, the bank obtains all the purposes of keeping a million of money by them; and though the subscribers, if no call is made upon them (which is generally the case), receive six and a half per cent. for the money they advance, yet the company gains the sum of 23,500*l* per annum by the contract: as will appear by the following account.

The bank receives from the government for the advance of a million,	30,000*l.*
The bank pays to the subscribers who advance 100,000*l.* and engage to pay, when called for, 900,000*l.* more,	6,500*l.*
The clear gain to the bank therefore is	23,500*l.*

This is the state of the case, provided the company should make no call on the subscribers, which they will be very unwilling to do, because it would not only lessen their profit, but affect the public credit in general.

Bank stock may not improperly be called a trading stock, since with this they deal very largely in foreign gold and silver, in discounting bills of exchange, &c. Besides which, they are allowed by the government very considerable sums annually, for the management of the annuities paid at their office :• all which advantages render a share in their stock very valuable, though it is not equal in value to East India stock. The company make dividends of the profits half-yearly, of which notice is publicly given, when those who have occasion for their money may readily receive it : but private persons, if they judge convenient, are permitted to continue their funds, and to have their interest added to the principal.

We shall here give a brief account of some recent events, of considerable importance in the history of this great company. In the beginning of the year 1797, a scarcity of specie prevailing, and an alarm having been excited by the reports of an invasion, the run became so great on several banks in the north, that they were unable to make their payments, and obliged to draw largely on the bank, which, having before advanced great sums to government for foreign loans and public services found the drain of its specie so great as to be compelled to represent the pressing necessity of the case to the minister.

An order of the privy council was in consequence issued, prohibiting the bank from paying in specie, either notes or dividends ; and a bill was brought into parliament, to sanction this order, and extend the prohibition to the 24th of June following; after which it was still further extended to one month after the next session of parliament ; and in that session continued till one month after the termination of the present war.

The bank is, however, allowed to resume its payments in cash at any intermediate period, by communicating its intentions to the speaker of the house of commons, and giving one months notice. To facilitate commercial intercourse, bank notes of one and two pounds were issued, and Spanish dollars, stamped at the bank, were made current at four shillings and ninepence. But this being above their real value, and the price of silver soon after falling, such numbers of counterfeit stamps appeared, that it was judged advisable to call them all in; which was done, the bank advertising in the beginning of October, 1797, that they would give cash for them till the last day of that month, but no longer. After the first week, as it was apparent that a considerable loss must be sustained by the lower and middling classes, if all the counterfeit stamps were refused, the bank, much to its honour, consented to receive all that were not base silver.

On the occasion of this prohibition of payment, a secret committee of the house of commons was appointed to examine the state of the out-standing demands on the bank of England, and its funds for discharging the same. The statement of these demands and funds, to the 25th of February, 1797, was as follows.

Out-standing demands	13,770,390*l.*
Funds for discharging those demands, not including the permanent debt due from government, of 11,686,800*l.* which bears an interest of three per cent.	17,597,280*l.*
Surplus of effects of the bank, exclusive of the above-mentioned permanent debt of 11,686,800*l.*	3,826,890*l.*

This company is under the direction of a governor, deputy governor, and 24 directors, who are annually elected by the general court, in the same manner as in the East India company. Thirteen, or more, compose a court of directors for managing the affairs of the company.

The South Sea company is under the direction of a governor, sub-governor, deputy-governor, and 21 directors; but no person is qualified to be governor, his majesty excepted, unless such governor has, in his own name and right, 5000*l.* in the trading stock; the sub-governor is to have 4000*l.* the deputy governor 3000*l.* and a director 2000*l.* in the same stock. In every general court, every member having, in his own name and right, 500*l.* in trading stock, has one vote; if 2000*l.* two votes; 3000*l.* three votes; and if 5000*l.* four votes.

The East India company, of which we shall treat in describing India, the bank of England, and the South Sea company, are the only corporated bodies to which the government is indebted, except the million bank, whose capital is only one million, constituted to purchase the reversion of the long exchequer orders.

The interest of all the debts owing by the government was some years since reduced to three per cent. excepting only the annuities for the year 1758, the life annuities, and the exchequer orders; but the South Sea company still continues to divide four per cent on their present capital stock, which they are enabled to do from the profits they make on the sums allowed to them for management of the annuities paid at their office, and from the interest of annuities which are not claimed by the proprietors.

As the prices of the different stocks are continually fluctuating above and below par, so when a person, who is not acquainted with transactions of that nature, reads in papers the prices of stocks, where Bank stock is marked perhaps 127, India ditto 134$\frac{1}{8}$ South Sea ditto 97$\frac{1}{4}$, &c. he is to understand that 100*l.* of those respective stocks sell at such a time for those several sums.

In comparing the prices of the different stocks one with another, it must be remembered, that the interest due on them from the time of the last payment, is taken into the current price, and the seller never receives any separate consideration for it, except in the case of India bonds, where the interest due is calculated to the day of the sale, and paid by the purchaser over and above the premium agreed for. But as the interest of the different stocks is paid at different times, this, if not rightly understood, would lead a person not well acquainted with them, into considerable mistakes in his computation of their value; some always having a quarter's interest due on them more

than others, which makes an appearance of a considerable difference in the price, when in reality there is none at all; thus, for instance, old South Sea annuities sell for 85½*l.* or 85*l.* 10*s.* while new South Sea annuities fetch only 84¼*l.* or 84*l.* 15*s.* though each of them produces the annual sum of three per cent. but the old annuities have a quarter's interest more due on them than the new annuities, which amounts to 15 shillings, the exact difference. There is, however, one or two causes that will always make one species of annuities sell somewhat lower than another, though of the same real value; one of which is the annuities making but a small capital, and there not being, for that reason, so many people at all times ready to buy into them, as into others where the quantity is larger; because it is apprehended that whenever the government pays off the national debt, they will begin with that particular species of annuities, the capital of which is the smallest.

We now proceed to consider the military state of this kingdom, which includes the whole of the soldiery, or such persons as are peculiarly appointed among the rest of the people, for the safeguard and defence of the realm.

In a land of liberty, it is extremely dangerous to make a distinct order of the profession of arms. In such, no man should take up arms, but with a view to defend his country and its laws: he puts not off the citizen when he enters the camp; but it is because he is a citizen, and would wish to continue so, that he makes himself for a while a soldier. The laws and constitution of these kingdoms know no such state as that of a perpetual standing soldier, bred up to no other profession than that of war; and it was not till the reign of Henry VII that the kings of England had so much as a guard about their persons.

It seems universally agreed, by all historians, that king Alfred I. settled a national militia in this kingdom, and by his prudent discipline, made all the subjects of his dominions soldiers.

In the mean time we are not to imagine that the kingdom was left wholly without defence, in case of domestic insurrections, or the prospect of foreign invasions. Besides those, who, by their military tenures, were bound to perform forty days' service in the field, the statute of Winchester obliged every man, according to his estate and degree, to provide a determinate quantity of such arms as were then in use, in order to keep the peace; and constables were appointed in all hundreds, to see that such arms were provided.

These weapons were changed by the statute 4 and 5 Ph. and M. c. 2. into others of more modern service; but both this and the former provisions were repealed in in the reign of James I.; while these continued in force, it was usual, from time to time, for our princes to issue commissions of array, and to send into every county officers, in whom they could confide, to muster and array, or set in military order, the inhabitants of every district; and the form of the commission of array was settled in parliament in the 5th Henry IV. But at the same time it was provided, that no man should be compelled to go out of the kingdom at any rate; nor out of his shire, but in cases of urgent necessity; nor should provide soldiers, unless by consent of parliament. About the reign of king Henry VIII. lord lieutenants began to be introduced, as standing representatives

of the crown, to keep the counties in military order: for we find them mentioned as known officers in the statute 4 and 5 Ph and M. c 3. though they had not been then long in use; for Camden speaks of them in the time of queen Elizabeth as extraordinary magistrates, constituted only in times of difficulty and danger.

Soon after the restoration of king Charles II. when the military tenures were abolished, it was thought proper to ascertain the power of the militia, to recognise the sole right of the crown to govern and command them, and to put the whole into a more regular method of military subordination; and the order in which the militia now stands by law is principally built upon the statutes which were then enacted. It is true the two last of them are apparently repealed; but many of their provisions are enacted, with the addition of some new regulations, by the present militia laws; the general scheme of which is to discipline a certain number of the inhabitants of every county, chosen by lot, for five years, and officered by the lord lieutenant, the deputy lieutenants, and other principal land-holders, under a commission from the crown. They are not compellable to march out of their counties, unless in case of invasion or actual rebellion, nor in any case to be sent out of the kingdom. They are to be exercised at stated times, and their discipline in general is liberal and easy: but when drawn out in actual service, they are subject to the rigours of martial law, as necessary to keep them in order. This is the constitutional security which our laws have provided for the public peace, and for protecting the realm against foreign and domestic violence, and which the statutes declare is essentially necessary to the safety and prosperity of the kingdom.

But as the mode of keeping standing armies has universally prevailed over all Europe of late years, it has also for many years past been annually judged necessary by our legislature, for the safety of the kingdom, the defence of the possessions of the crown of Great Britain, and the preservation of the balance of power in Europe, to maintain, even in time of peace, a standing body of troops, under the command of the crown; who are, however, ipso facto, disbanded at the expiration of every year, unless continued by parliament.

The land forces of these kingdoms in time of peace amount to about 40,000 men, including troops in garrisons in Ireland, Gibraltar, the East Indies, and America; but in time of war the number is much greater. The whole of the regular force, in the year 1798, amounted to 78,627 men; and the militia and fencibles, including 6,911 fencible cavalry, to 52,202 men. To govern this body of troops, an annual act of parliament passes, "to punish mutiny and desertion, and for the better payment of the army and their quarters." This regulates the manner in which they are to be dispersed among the several innkeepers and victuallers throughout the kingdom; and establishes a law martial for their government.

The maritime state is nearly related to the former, though much more agreeable to the principles of our free constitution. The royal navy of England has ever been its greatest defence and ornament; it is an antient and natural strength; the floating bulwark of the island; an army from which, however strong and powerful, no danger can ever be apprehended to liberty; and accordingly it has been assiduously cultivated, even from the earliest ages. To so much perfection was our naval reputation arrived

in the 12th century, that the code of maritime laws which are called the Laws of Oleron, and are received by all nations in Europe as the ground and construction of all their maritime constitutions, was confessedly compiled by our king Richard I. at the isle of Oleron, on the coast of France, then part of the possessions of the crown of England. And yet so vastly inferior were our ancestors in this point to the present age, that even in the maritime reign of queen Elizabeth, sir Edward Coke thinks it matter of boast that the royal navy of England then consisted of 33 ships. The present condition of our marine is in a great measure owing to the salutary provisions of the statute called the navigation act; whereby the constant increase of English shipping and seamen was not only encouraged, but rendered unavoidably necessary. The most beneficial statute for the trade and commerce of these kingdoms is that navigation act, the rudiments of which were first framed in 1650, partly with a narrow view: being intended to mortify the sugar islands, which were disaffected to the parliament, and still held out for Charles II. by stopping the gainful trade which they then carried on with the Dutch; and at the same time to clip the wings of those our opulent and aspiring neighbours. This prohibited all ships of foreign nations from trading with any English plantations without licence from the council of state. In 1651, the prohibition was extended also to the mother country; and no goods were suffered to be imported into England, or any of its dependencies in any other than English bottoms, or in the ships of that European nation, of which the merchandize imported was the genuine growth or manufacture. At the Restoration, the former provisions were continued by statute 12 Car. 2. c. 18. with this very material improvement, that masters and three-fourths of the mariners shall also be English subjects.

The compliment of seamen, in time of peace, usually hath amounted to 12, or 15,000. In time of war, they formerly amount to about 30,000 men; and after the commencement of the American war, to above 100,000, including marines. The vote of parliament for the service of the years 1798 and 1799 was for 120,000 seamen, including marines.

This navy is commonly divided into three squadrons, namely, red, white, and blue, which are so termed from the differences of their colours. Each squadron has its admiral; but the admiral of the red squadron has the principal command of the whole, and is styled vice-admiral of Great Britain. Subject to each admiral is also a vice and rear admiral. But the supreme command of our naval force is, next to the king, in the lords commissioners of the admiralty.

Notwithstanding our favourable situation for a maritime power, it was not until the vast armament sent to subdue us by Spain, in 1588, that the nation, by a vigorous effort, became fully sensible of its true interest and natural strength, which it has since so happily cultivated.

We may safely affirm that the British navy is able to cope with all the other fleets of Europe. The brilliant victories of lords St. Vincent, Duncan, and Nelson, and the surrender of the whole Dutch fleet lying in the Texel, have established the unrivalled superiority of Britain over all the maritime powers of Europe. At the beginning of the year 1800, the British naval force consisted of 144 ships of the line, in com-

mission; 22 fifty-gun ships, 200 frigates, and 292 other ships of war; in the whole 658 ships; including receiving ships, ships in ordinary and building, 902, of which 224 were of the line.

We shall close this account of the military and maritime strength of England, or rather of Great Britain, by observing, that though sea officers and sailors are subject to a perpetual act of parliament, which answers the annual military act that is passed for the government of the army, yet neither of those bodies are exempted from legal jurisdiction in civil or criminal cases, but in few instances, of no great moment. The soldiers, particularly, may be called upon by a civil magistrate to enable him to preserve the peace against all attempts to break it. The military officer who commands the soldiers on those occasions is to take his directions from the magistrate; and both he and they, if their proceedings are regular, are indemnified against all consequences, be they ever so fatal. Those civil magistrates who understand the principles of the constitution, are, however, extremely cautious in calling for the military on these occasions, or upon any commotion whatever; and, indeed, with good reason; for the frequent employment of the military power in a free government is exceedingly dangerous, and cannot be guarded against with too much caution.

The title of the king of England is, By the Grace of God, of Great Britain, France, and Ireland, King, Defender of the Faith. The designation of the kings of England was formerly his or her Grace, or Highness, till Henry VIII. to put himself on a footing with the emperor Charles V. assumed that of Majesty; but the old designation was not abolished till towards the end of queen Elizabeth's reign. The title of Defender of the Faith, above mentioned, was given to Henry VIII. by the pope, on account of a book written by the king against Luther and the reformation. Besides the title already given, the king of Great Britain has others from his German dominions, as Elector of Hanover, Duke of Brunswick, Lunenburg, &c.

Since the accession of the present royal family of Great Britain, A. D. 1714, the royal achievement is marshalled as follows: quarterly, in the first grand quarter, Mars, three lions passant guardant, in pale Sol, the imperial ensigns of England, impaled with the royal arms of Scotland, which are, Sol, a lion rampant, within a double tressure flowered, and counter-flowered with fleurs-de-lis, Mars. The second quarter is the royal arms of France, viz. Jupiter, three fleurs-de-lis, Sol. The third, the ensigns of Ireland, which is Jupiter, and harp, Sol, stringed Luna. And the fourth grand quarter is his present majesty's own coat, viz. Mars, two lions passant guardant, Sol, for Brunswick, impaled with Lunenburg, which is, Sol, semee of hearts, proper, a lion rampant, Jupiter; having antient Saxony, viz. Mars, an horse currant, Luna, enté, or grafted, in base and in a shield sur tout, Mars, the diadem, or crown of Charlemagne; the whole within a garter, as sovereign of that most noble order of knighthood.

The motto of Dieu et mon Droit, that is, God and my Right, is as old as the reign of Richard I. who assumed it to shew his independency upon all earthly powers. It was afterwards revived by Edward III. when he laid claim to the crown of France. Almost every king of England had a particular badge or cognisance; sometimes a white

hart, sometimes a fetlock with a falcon, by which it is said Edward IV. alluded to the infidelity of one of his mistresses: and sometimes a portcullis, which was that of the house of Lancaster, many of the princes of which were born in the castle of Beaufort. The white rose was the bearing of the house of York; and that of Lancaster, by way of contradistinction, adopted the red. The thistle, which is now part of the royal armorial bearings, belonged to Scotland, and was very significant when joined to its motto, Nemo me impune lacessit, "None shall provoke me unpunished."

The titles of the king's eldest son are, Prince of Wales, duke of Cornwall and Rothsay, earl of Chester, electoral prince of Brunswick and Lunenburgh, earl of Carrick, baron of Renfrew, lord of the isles, great steward of Scotland, and captain-general of the artillery company.

The order of the Garter, the most honourable of any in the world, was instituted by Edward III. January 19, 1344. It consists of the sovereign, who is always king or queen of England, of 25 companions, called Knights of the Garter, who wear a medal of St. George killing the dragon, supposed to be the tutelar saint of England, commonly enamelled on gold, suspended from a blue ribband, which was formerly worn about their necks but since the latter end of James I. now crosses their bodies from their shoulder. The garter, which is of blue velvet, bordered with gold, buckled under the left knee, and gives the name to the order, was designed as an ensign of unity and combination, on it are embroidered the words, Honi soit qui mal y pense, "Evil be to him who evil thinks."

Knights of the Bath, so called from their bathing at the time of their creation, are supposed to be instituted by Henry IV. about the year 1399; but the order seems to be more antient. For many reigns they were created at the coronation of a king or queen, or other solemn occasions, and they wear a scarlet ribband hanging from the left shoulder, with an enamelled medal, the badge of the order, a rose issuing from the dexter side of a sceptre, and a thistle from the sinister, between three imperial crowns placed within the motto, Tria juncta in unum, "Three joined in one." This order being discontinued, was revived by king George I. on the 8th of May, 1725; and the month following, 18 noblemen, and as many commoners of the first rank, were installed knights of the order, with great ceremony, at Westminster, where the place of installment is the chapel of Henry VII. Their robes are splendid and showy, and the number of knights is undetermined. The bishop of Rochester is perpetual dean of the order, which has likewise a register and other officers.

The order of the Thistle was instituted, as the Scottish writers assert, by Achaius, in the ninth century, upon his making an offensive and defensive league with Charlemagne, king of France; or, as others say, on account of his victory over Athelstan, king of England, when he vowed, in the kirk of St. Andrew, that he and his posterity should ever bear in their ensigns the figure of that cross on which the saint suffered.

This order has been frequently neglected, and as often resumed. It consists of the sovereign and 12 companions, who are called knights of the Thistle, and have on their ensigns

this significant motto, nemo me impune lacessit, "None shall attack me with impunity."

The order of St. Patrick was instituted February the 5th, and the installation of the first knight was performed on the 17th of March, 1783. It consists of the sovereign and 15 other knights companions. The lords lieutenants of Ireland for the time being officiate as grand masters of the order, and the archbishop of Armah is the prelate, the archbishop of Dublin the chancellor, and the dean of St. Patrick the register of the order. The knights are installed in the cathedral of St. Patrick, Dublin. Their robes are splendid, and the badge is three crowns united together on a cross, with this motto, quis separabit, "Who shall separate;" 1783 fastened by an Irish harp to the crown imperial. A star of eight points encircles it on the coat.

Baronets can scarcely be said to belong to an order, having no other badge than a bloody hand in a field argent, in their arms. They are the only hereditary honour under the peerage, and would take place even of the knights of the garter, were it not that the latter are always privy counsellors; there being no intermediate honour between them and the parliamentary barons of England. They were instituted by James I. about the year 1615. Their number was then 200, and each paid about 1000*l.* on pretence of reducing and planting the province of Ulster in Ireland; but at present their number amounts to 700.

A knight is a term used almost in every nation in Europe, and in general signifies a soldier serving on horseback; a rank of no mean estimation in antient armies, and entitling the parties themselves to the appellation of Sir.

Other knighthoods formerly took place in England; such as those of bannerets, bachelors, knights of the carpet, and the like; but they are disused. Indeed, in the year 1773, at a review of the royal navy at Portsmouth, the king conferred the honour of knights bannerets on two admirals and three captains. They have no particular badge on their garments, but their arms are painted on a banner placed in the frames of the supporters.

It is somewhat difficult to account for the origin of the word esquire, which formery signed a person bearing the arms of a nobleman or knight, and they were therefore called Armigeri. This title denoted any person, who by his birth or property, was entitled to bear arms; but it is at present applied promiscuously to any man who can afford to live in the character of a gentleman, without trade; and even a tradesman, if he is a justice of the peace, demands the appellation. This degree, so late as in the reign of Henry IV. was an order, and conferred by the king, by putting about the party's neck a collar of SS. and giving him a pair of silver spurs. Gower the poet appears, from his effigies on his tomb in Southwark, to have been an esquire by creation. Serjeants at law, and other serjeants belonging to the king's household, justices of the peace, doctors in divinity, law, and physic, take place of other esquires; and it is remarkable, that all the sons of dukes, marquises, earls, viscounts, and barons, are, in the eye of the law, no more than esquires, though commonly designated by noble titles. The appellation of gentleman, though bestowed so promiscuously, is the root of all Eng-

lish honour, for every nobleman is presumed to be a gentleman, though every gentleman is not a nobleman.

The municipal law of England, or the rule of civil conduct prescribed to the inhabitants of that kingdom, may, with sufficient propriety, be divided into two kinds; the unwritten or common law, and the written or statute law. The unwritten law includes not only general customs or the common law properly so called, but also the particular customs of certain parts of the kingdom, and likewise those particular laws that are observed only in certain courts and jurisdictions. The civil law of the Roman empire, and the canon law of the pontiff, are admitted in some cases, as established customs in common law. The statute law of this kingdom consists of all those acts of parliament which have been enacted from the time of Magna Charta and remain unrepealed. The laws of Scotland are subject to a similar division.

The court of chancery, which is the court of equity, is next in dignity to the high court of parliament, and is designed to relieve the subject against frauds, breaches of trust, and other oppressions, and to mitigate the rigour of the law. The lord high chancellor sits as sole judge, and, in his absence, the master of the rolls. The form of proceeding is by bills, answers, and decrees; the witnesses being examined in private: however, the decrees of this court are only binding to the persons of those concerned in them, for they do not affect their lands and goods; and consequently, if a man refuses to comply with the terms, they can do nothing more than send him to the prison of the Fleet. This court is always open; and if a man be sent to prison, the lord chancellor, in any vacation, can, if he see reason for it, grant a habeas corpus.

The clerk of the crown likewise belongs to this court; he, or his deputy, being obliged always to attend on the lord chancellor, as often as he sits for the dispatch of business. Through his hand pass all writs for summoning the parliament or choosing of members, commissions of the peace, pardons, &c.

The King's Bench, so called either from the kings of England sometimes sitting there in person, or because all matters determinable by common law between the king and his subject are here tried, except such affairs as properly belong to the court of exchequer. This court is likewise a kind of check upon all the inferior courts, their judges, and justices of the peace. Here preside four judges, the first of whom is styled lord chief justice of England, to express the great extent of his jurisdiction over the kingdom: for this court can grant prohibitions in any cause depending either in spiritual or temporal courts; and the house of peers does often direct the lord chief justice to issue out his warrant for apprehending persons under suspicion of high crimes. The other three judges are called justices or judges of the King's Bench.

The court of Common Pleas takes cognizance of all pleas debatable, and civil actions depending between subject and subject; and in it, besides all real actions, fines, and recoveries are transacted, and prohibitions are likewise issued out of it, as well as from the King's Bench. The first judge of this court is stiled lord chief justice of the Common Pleas, or common bench: besides whom there are likewise three other judges, or justices of this court. None but serjeants at law are allowed to plead here.

The court of Exchequer was instituted for managing the revenues of the crown, and has a power of judging both according to law and according to equity. In the proceedings according to law, the lord chief baron of the exchequer and three other barons, preside as judges. They are styled barons, because formerly none but barons of the realm were allowed to be judges in this court. Besides these, there is a fifth, called cursitor baron, who has not a judicial capacity, but is only employed in administering the oath to sheriffs and other officers, and also to several of the officers of the custom-house. But when this court proceeds according to equity, then the lord treasurer and the chancellor of the Exchequer preside, assisted by the other barons. All matters touching the king's treasury, revenue, customs, and fines, are here tried and determined. Besides the officers already mentioned, there belong to the Exchequer, the king's remembrancer, who takes and states all accounts of the revenue, customs, excise, parliamentary aids and subsidies &c. except the accounts of the sheriffs and their officers: the lord treasurer's remembrancer, whose business it is to make out processes against sheriffs, receivers of the revenue, and other officers.

For putting the laws effectually in execution, a high sheriff is annually appointed for every county (except Westmoreland and Middlesex) by the king; whose office is both ministerial and judicial. He is to execute the king's mandate, and all writs directed to him out of the king's courts of justice; to impannel juries; to bring causes and malefactors to trial; to see sentence, both in civil and criminal affairs, executed; and at the assize to attend the judges, and guard them all the time they are in his county. He is likewise to decide the elections of knights of the shire, of coroners and verderers; to judge of the qualifications of voters, and return such as he shall determine to be duly elected. It is also part of his office to collect all public fines, distresses, amercements, into the Exchequer, or where the king shall appoint, and to make such payments out of them as his majesty shall think proper.

As his office is judicial, he keeps a court called the county court, which is held by the sheriff, or his under sheriffs, to hear and determine all civil causes in the county, under forty shillings: this, however, is no court of record; but the court, formerly called the sheriff's tourn, was one; and the king's leet, through all the county: for in this court inquiry was made into all criminal offences against the common law, where by the statute law there was no restraint. This court, however, has been long since abolished. As the keeper of the king's peace, both by common law and special commission, he is the first man in the county, and superior in rank to any nobleman therein, during his office. He may command all the people in his county to attend him, which is called the posse comitatus, or power of the county.

Under the sheriff are various officers, as the under sheriffs, clerks, stewards of the courts, bailiffs (in London called serjeants), constables, goalers, beadles, &c.

The next officer to the sheriff is the justice of peace, several of whom are commissioned for each county; and to them is entrusted the power of putting great part of the statute law in execution, in relation to the highways, the poor, vagrants, treasons, felonies, riots, the preservation of the game, &c. &c. and they examine and commit to

prison all who break or disturb the peace, and disquiet the king's subjects. In order to punish the offenders, they meet every quarter at the county town, when a jury of 12 men, called the grand inquest of the county, is summoned to appear. The jury upon oath is to inquire into the cases of all the delinquents, and to present them by bill, guilty of the indictment, or not guilty; the justices commit the former to goal for their trial at the next assizes, and the latter are acquitted. This is called the quarter-sessions tor the county.

The justice of peace ought to be a person of great good sense, sagacity, and integrity, and to be not without some knowledge of the law: for otherwise he may commit mistakes, or abuse his authority; for which, however he is amenable to the court of King's Bench.

Each county contains two coroners, who are to inquire, by a jury of neighbours, how and by whom any person came by a violent death, and to enter it on record as a plea of the crown. Another branch of their office is to inquire concerning shipwreck, and certify whether wreck or not, and who is in possession of the goods. In his ministerial office he is the sheriff's substitute.

The civil government of cities is a kind of small independent policy of itself; for every city hath, by charter from the king, a jurisdiction within itself, to judge in all matters civil and criminal; with this restraint only, that all civil causes may be removed from their courts to the higher courts at Westminster; and all offences that are capital are committed to the judge of the assize. The government of cities differs according to their different charters, immunities, and constitutions. They are constituted with a mayor, aldermen, and burgesses, who, together, make the corporation of the city, and hold a court of judicature, where the mayor presides as judge. Some cities are counties, and choose their own sheriffs; and all of them have the power of making bye-laws for their own government. Some have thought the government of cities, by mayor, aldermen and common council, is an epitome of the English government, by kings, lords, and commons.

The government of incorporated boroughs is much after the same manner; in some there is a mayor, and others two bailiffs; all which, during their mayoralty or magistracy, are justices of the peace within their own liberties, and consequently esquires.

The cinque-ports are five havens, formerly esteemed most important ones, that lie on the east part of England towards France, as Dover, Sandwich, Romney, Hastings, and Hythe, to which Winchelsea and Rye have been since added, with similar franchises in many respects. These cinque ports were endowed with particular privileges by our antient kings, upon condition that they should provide a certain number of ships at their own charge, to serve in the wars for forty days, as often as they were wanted.

For the better government of villages, the lords of the soil or manor (who were formerly called barons) have generally a power to hold courts, called courts-leet and courts-baron, where their tenants are obliged to attend and receive justice.

The business of courts-leet is chiefly to prevent and punish nuisances; and at courts-

baron the conveyances and alienations of the copyhold tenants are enrolled, and they are admitted to their estates on descent or purchase.

A constable is a very antient and respectable officer of the peace, under the English constitution. Every hundred has a high constable; and every parish in that hundred a constable, and they are to attend the high constable upon proper occasions. They are assisted by another antient officer called the tything-man, who formerly superintended the tenth part of an hundred or ten free burghs, as they were called in the time of the Saxons, and each free burgh consisted of ten families. The business of constable is to keep the peace in all cases of quarrels and riots. He can imprison offenders till they are brought before a justice of peace; and it is his duty to execute within his district, every warrant that is directed to him from that magistrate, or a bench of justices. The neglect of the old Saxon courts, both for the preservation of the peace, and the more easy recovery of small debts, has been regretted by many eminent lawyers; and it has of late been found necessary to revive some of them, and to appoint others of a similar nature.

Besides these, there are courts of conscience in many parts of England for the relief of the poor, in the recovery of payment of small debts, not exceeding forty shillings.

There neither is, nor ever was any constitution provided with so many fences as that of England is, for the security of personal liberty Every man imprisoned has a right to bring a writ before a judge at Westminster-hall called his *Habeas Corpus*. If that judge after considering the cause of commitment, shall find that the offence is bailable, the party is immediately admitted to bail, till he is condemned or acquitted in a proper court of justice.

The rights of individuals are so attentivly guarded, that the subject may, without the least danger, sue his sovereign, or those who act in his name, and under his authority: he may do this in open court, where the king may be cast, and be obliged to pay damages to his subject. The king cannot take away the liberty of the meanest individual, unless he has, by some illegal act of which he is accused or suspected upon oath, forfeited his right to liberty, or except when the state is in danger, and the representatives of the people think the public safety makes it necessary that he should have the power of confining persons on such a suspicion of guilt; such as the case of rebellion within the kingdom, when the legislature has sometimes thought proper to pass a temporary suspension of the Habeas Corpus act. The king has a right to pardon; but neither he nor the judges to whom he delegates his authority can condemn a man as a criminal, except he be first found guilty by 12 men, who must be his peers, or his equals. That the judges may not be influenced by the king or his ministers to misrepresent the case to the jury, they have their salaries for life, and not during the pleasure of their sovereign.

Neither can the king take away or endanger the life of any subject, without trial, and the persons being first chargeable with a capital crime, as treason, murder, felony, or some other act injurious to society, nor can any subject be deprived of his liberty, for the highest crime, till some proof of his guilt be given upon oath before a

magistrate: and he has then a right to insist upon his being brought, the first opportunity, to a fair trial, or to be restored to liberty on giving bail for his appearance. If a man is charged with a capital offence, he must not undergo the ignominy of being tried for his life till the evidences of his guilt are laid before the grand jury of the town or county in which the fact is alledged to be committed, and not unless 12 of them agree to a bill of indictment against him. If they do this, he is to stand a second trial before 12 other men, whose opinion is definitive. By the 28th Edward III. it is enacted, that where either party is an alien born, the jury shall be one half aliens, and the other denizens, if required, for the more impartial trial; a privilege indulged to strangers in no other country in the world, but which is as antient with us as the time of king Ethelred.

In some cases, the man (who is always supposed innocent till there be sufficient proof of his guilt) is allowed a copy of the indictment, in order to assist him in making his defence. He is also furnished with the pannel, or list of the jury, who are his true and proper judges that he may learn their characters, and discover whether they want abilities, or whether they are prejudiced against him. He may in open court peremptorily object to 20 of the number; and to as many more as he can give reason for their not being admitted as his judges; till at last 12 unacceptionable men, the neighbours of the party accused, or living near the place where the supposed fact was committed, are approved of, who take the following oath, that they shall well and truly try, and true deliverance make between the king and the prisoner, whom they shall have in charge according to the evidence. By challenging the jury, the prisoner prevents all possibility of bribery or the influence of any superior power: by their living near the place where the fact was committed, they are supposed to be men who knew the prisoner's course of life, and the credit of the evidence. These only are the judges from whose sentence the prisoner is to expect life or death; and upon their integrity and understanding, the lives of all that are brought in danger ultimately depend, and from their judgment there is no appeal; they are therefore to be all of one mind, and after they have fully heard the evidence, are to be confined without meat, drink or candle, till they are unanimous in acquitting or condemning the prisoner. Every juryman is therefore vested with a solemn and awful trust; if he without evidence submits his opinion to that of any other of the jury, or yields in compliance to the opinion of the judge; if he neglects to examine with the utmost care; if he questions the veracity of the witnesses, who may be of an infamous character; or after the most impartial hearing, has the least doubt upon his mind, and yet joins in condemning the person accused, he will wound his own conscience and bring upon himself the complicated guilt of perjury and murder. The freedom of Englishmen consists in its being out of the power of the judge on the bench to injure them for declaring a man innocent whom he wishes to bring in guilty. Were not this the case, juries would be useless; for, far from being judges themselves, they would only be the tools of another, whose province is not to guide, but to give a sanction to their determination Tyranny might triumph over the lives and liberties of the subject, and the judge on the bench be the minister of the prince's vengeance.

Trial by jury is so capital a privilege, and so great a security to the liberty of the subject, that it is much to be regretted that persons of education and property are often too ready to evade serving the office. By this means juries frequently consist of ignorant and illiterate persons, who neither have knowledge enough to understand their rights and the privileges of Englishmen, nor spirit enough to maintain them. No man should be above serving in so important an office, when regularly called upon; and those who, from indolence or pride, decline discharging this duty to their country, seem hardly to deserve that security and liberty which the inhabitants of England derive from this invaluable institution.

Juries have, indeed, always been considered as giving the most effectual check to tyranny; for in a nation like this, where a king can do nothing against law, they are a security that he shall never make the laws, by a bad administration, the instruments of cruelty and oppression. Were it not for juries, the advice given by father Paul, in his maxims of the republic at Venice, might take effect in its fullest latitude. "When the offence is committed by a nobleman against a subject," says he, "let all ways be tried to justify him; and if that is not possible to be done, let him be chastised with greater noise than damage. If it be a subject that has affronted a nobleman, let him be punished with the utmost severity, that the subjects may not get too great a custom of laying their hands on the patrician order." In short, was it not for juries, a corrupt nobleman might, whenever he pleased, act the tyrant, while the judge would have that power which is now denied to our kings. But by our happy constitution, which breaths nothing but liberty and equity, all imaginary indulgence is allowed to the meanest as well as the greatest. When a prisoner is brought to take his trial, he is freed from all bonds; and though the judges are supposed to be counsel for the prisoner, yet as he may be incapable of vindicating his own cause, other counsel are allowed him, he may try the validity and legality of the indictment, and may set it aside, if it be contrary to law. Nothing is wanted to clear up the cause of innocence, and to prevent the sufferer from sinking under the power of corrupt judges, and the oppression of the great. The racks and tortures that are cruelly made use of in other parts of Europe to make a man accuse himself, are here unknown, and none punished without conviction, but he who refuses to plead in his own defence.

As the trial of malefactors in England is very different from that of other nations, the following account may be useful to foreigners and others, who have not seen those proceedings.

The court being met, and the prisoner called to the bar, the clerk commands him to hold up his hand, then charges him with the crime of which he is accused and asks him whether he is guilty or not guilty. If the prisoner answers guilty, his trial is at an end, but if he answers not guilty, the court proceeds on the trial, even though he may before have confessed the fact; for the law of England takes no notice of such confessions; and unless the witnesses, who are upon oath, prove him guilty of the crime, the jury must acquit him; for they are directed to bring in their verdict according to the evidence given in court. If the prisoner refuses to plead, that is, if he will not say in

court whether he is guilty or not guilty, he might, till lately, by the law of England, be pressed to death, with a load of iron upon his breast; but at present, the same sentence is passed on him as in case of conviction.

When the witnesses have given in their evidence, and the prisoner has, by himself or his counsel, cross-examined them, the judge recites to the jury the substance of the evidence given against the prisoner, and bids them discharge their conscience: when, if the matter be very clear, they commonly give their verdict without going out of the court; and the foreman, for himself and the rest, declares the prisoner guilty or not guilty, as it may happen to be. But if any doubt arise among the jury, and the matter require debate, they all withdraw into a room, with a copy of the indictment, where they are locked up till they are unanimously agreed on the verdict; and if any one of the jury should die during this their confinement, the prisoner will be acquitted.

When the jury have agreed on the verdict, they inform the court, by an officer who waits without, and the prisoner is again set to the bar, to hear his verdict. This is unalterable, except in some doubtful cases, when the verdict is brought in special, and is therefore to be determined by the 12 judges of England.

If the prisoner be found guilty, he is then asked what reason he can give why sentence of death should not be passed upon him.

There is now properly no benefit of clergy; it is changed to transportation or burning in the hand. Upon a capital conviction, the sentence of death, after a summary account of the trial, is pronounced on the prisoner, in these words; "The law is, That thou shalt return to the place from whence thou comest, and from thence to be carried to the place of execution, where thou shalt be hanged by the neck, till thy body be dead; and the Lord have mercy on thy soul!" whereupon the sheriff is charged with the execution.

All the prisoners found not guilty by the jury are immediately acquitted and discharged, and in some cases obtain a copy of their indictment from the court, to proceed at law against their prosecutors.

We now proceed to consider the different denominations of religion, which subsist in this country; and begin with that which is established by law.

The sovereigns of England, ever since the reign of Henry VIII. have been called, in public writs, the supreme heads of the church; but this title conveys no spiritual meaning; as it only denotes the royal power to prevent any ecclesiastical differences, or, in other words, to substitute the king in place of the pope before the Reformation, with regard to temporalities and the internal economy of the church. The kings of England never intermeddle in ecclesiastical disputes, unless by preventing the convocation from sitting to agitate them, and are contented to give a sanction to the legal rights of the clergy.

The church of England, under this description of the monarchial power over it, is governed by two archbishops and 24 bishops, beside the bishop of Sodor and Man; who, not being possessed of an English barony, does not sit in the house of peers. The two archbishops are those of Canterbury and York, who are dignified with the

address of Your Grace. The former is the first peer of the realm, as well as metropolitan of the English church. He takes precedence, next to the royal family, of all dukes and officers of state. He is enabled to hold ecclesiastical courts upon all affairs that were formerly cognisable in the court of Rome, when not repugnant to the laws of God, or the king's prerogative. He has the privilege consequently of granting, in certain cases, licences and dispensations, together with the probate of wills, when the party dying is worth upwards of five pounds. Besides his own diocese, he has under him the bishops of London, Winchester, Ely, Lincoln, Rochester, Litchfield, and Coventry, Hereford, Worcester, Bath and Wells, Salisbury, Exeter, Chichester, Norwich, Gloucester, Oxford, Peterburgh, Bristol; and in Wales, St. David's, Landaff, St. Asaph, and Bangor.

The archbishop of Canterbury has, by the constitution and laws of England, such extensive powers, that ever since the death of archbishop Laud, the government of England has prudently thought proper to raise to that dignity men of very moderate principles; but they have generally been men of considerable learning and abilities. This practice has been attended with excellent effects, with regard to the public tranquillity of the church, and consequently of the state.

The archbishop of York takes place of all dukes not of the blood royal, and of all officers of state, the lord chancellor excepted. He has in his province, besides his own diocese, the bishoprics of Durham, Carlisle, Chester, and Sodor and Man. In Northumberland he has the power of a palatine and jurisdiction in all criminal proceedings.

The bishops are addressed by the appellation of Your Lordship, styled "Right reverend father in God," and take the precedence of all temporal barons. They have all the privileges of peers; and the bishoprics of London, Winchester, Durham, Salisbury, Ely, and Lincoln, require no additional revenues to support their prelates in the rank of noblemen.

English bishops are to examine and ordain priests and deacons, to consecrate churches and burying places, and to administer the rite of confirmation. Their jurisdiction relates to probation of wills; to grant administration of goods to such as die intestate; to take care of perishable goods, when no one will administer; to collate to benefices; to grant institutions to livings; to defend the liberties of the church; and to visit their own diocese once in three years.

England contains about 60 archdeacons, whose office it is to visit the churches twice or thrice a-year; but their offices are less lucrative than they are honourable. Subordinate to them are the rural deans, formerly styled arch-presbyters, who signify the bishop's pleasure to his clergy, the lower class of which consists of priests and deacons.

The ecclesiastical government of England is, properly speaking, lodged in the convocation, which is a national representative or synod, and answers pretty nearly to the ideas we have of a parliament. They are convoked at the same time with every parliament; and their business is to consider of the state of the church, and to call those to an account who have advanced new opinions inconsistent with the doctrines of the church

of England. Some clergymen, of an intolerant and persecuting spirit, during the reign of queen Anne, and in the beginning of that of George I. raised the power of the convocation to a height that was inconsistent with the principles of religious toleration, and indeed of civil liberty; so that the crown was obliged to exert its prerogative of calling the members together, and of dissolving them; and ever since they have not been permitted to sit for any time in which they could do business.

The court of arches is the most antient consistory of the province of Canterbury; and all appeals in church matters, from the judgment of the inferior courts, are directed to this. The processes run in the name of the judge, who is called dean of the arches; and the advocates who plead in this court must be doctors of the civil law The court of audience has the same authority with this, to which the archbishop's chancery was formerly joined. The prerogative court is that wherein wills are proved, and administrations taken out. The courts of peculiars, relating to certain parishes, have a jurisdiction among themselves. for the probate of wills; and are therefore exempt from the bishop's courts. The see of Canterbury has no less than 15 of these peculiars. The court of delegates receives its name from its consisting of commissioners delegated or appointed by the royal commission; but it is no standing court. Every bishop has also a court of his own, called the consistory court. Every archdeacon has likewise his court, as well as the dean and chapter of every cathedral

The ecclesiastical establishment of Ireland is perfectly similar to that of England.

The bounds of this work do not admit of entering at large upon the doctrinal and economical part of the church of Scotland. It is sufficient to say that its first principle is a parity of ecclesiastical authority among all its presbyters; that it agrees in its censures with the reformed churches abroad in the chief heads of opposition to popery; but that it is modelled principally after the Calvinistical plan established at Geneva.

This establishment, at various periods, proved so tyrannical over the laity, by having the power of the great and lesser excommunication, which were attended by a forfeiture of estate, and sometimes of life, that the kirk sessions, and other bodies, have been abridged of all their dangerous powers over the laity, who were extremely jealous of their being revived. Even that relic of popery, the obliging fornicators of both sexes to sit upon what they call a repenting stool, in the church, and in full view of the congregation, begins to wear out, it having been found that the Scotch women, on account of that penance, were the greatest infanticides in the world. In short, the power of the Scotch clergy is at present very moderate, or at least very moderately exercised; nor are they accountable for the extravagancy of their predecessors. They have been, ever since the Revolution, firm adherents to civil liberty and the house of Hanover; and acted with remarkable intrepidity during the rebellion in 1745. They dress without clerical robes; but some of them appear in the pulpit in gowns, after the Geneva form, and bands. They make no use of set forms in worship. The rents of the bishops, since the abolition of episcopacy, are paid to the king, who commonly appropriates them to pious purposes. A thousand pounds a-year is always sent by his majesty for the use of protestant schools erected by act of parliament in North Britain, and the

Western Isles; and the Scotch clergy, of late, have planned out funds for the support of their widows and orphans. The number of parishes in Scotland are 890, of which 31 are collegiate churches; that is, where the cure is served by more than one minister.

The highest ecclesiastical authority in Scotland is the general assembly, which we may call the ecclesiastical parliament of Scotland. It consists of commissioners, some of whom are laymen, under the title of ruling elders, from presbyteries, royal burghs, and universities.

A presbytery, consisting of less than 12 ministers, sends two ministers, and one ruling elder; if it contains between 12 and 18 ministers, it sends three, and one ruling elder; if it contain between 18 and 24 ministers, it sends four ministers and two ruling elders; but if the presbytery has 24 ministers, it sends five ministers and two ruling elders. Every royal burgh sends one ruling elder, and Edinburgh two; whose election must be attested by the respective kirk sessions of their own burghs. Every university sends one commissioner, usually a minister of their body. These commissioners are chosen yearly, six weeks before the meeting of the assembly. The ruling elders are often persons of the first quality of the country.

The king presides by his commissioner (who is always a nobleman) in this assembly, which meets annually in May; but he has no voice in their deliberations. This assembly chooses a clergyman for its moderator, or speaker. Appeals are brought from all the other ecclesiastical courts in Scotland, to the general assembly; and no appeal lies from its determination in religious matters.

Provincial synods are next in authority to the general assembly. They are composed of a number of the adjacent presbyteries, over whom they have a power; and there are 15 of them in Scotland; but their acts are reversible by the general assembly.

Subordinate to the synods are the presbyteries, of which there are 69 in Scotland, each consisting of a number of contiguous parishes. The ministers of these parishes, with one ruling elder, chosen half yearly out of every session, compose a presbytery. These presbyteries meet in the head town of that division, but have no jurisdiction beyond their own bounds, though within these they have cognizances of all ecclesiastical causes and matters. A chief part of their business is the ordination of candidates for livings, in which they are regular and solemn. The patron of a living is bound to nominate or present in six months after a vacancy; otherwise the presbytery fills the place, jure devoluto; but that privilege does not hold in royal burghs.

A kirk session is the lowest ecclesiastical judicatory in Scotland, and its authority does not extend beyond its own parish. The members consist of ministers, elders, and deacons. The deacons are laymen, and act nearly as churchwardens do in England, by having the superintendency of the poor, and taking care of other parochial affairs. The elder, or, as he is called, the ruling elder, is a place of great parochial trust, and he is generally a lay-person of quality or interest in the parish. The elders are supposed to act in a kind of co-ordinancy with the minister, and to be assisting to him in many of his clerical duties, particularly in catechising, visiting the sick, and at the communion table.

The office of ministers, or preaching presbyters, includes the offices of deacons and ruling elders; they alone can preach, administer the sacrament, catechise, pronounce church censures, ordain deacons and ruling elders, assist at the imposition of hands upon other ministers, and moderate or preside in all ecclesiastical courts or judicatories.

Having thus described the ecclesiastical establishment of the United kingdom, it becomes necessary to enumerate the different denominations of dissenters: and here it will be proper to begin with such as are so united among themselves as to compose collective bodies, governed by fixed rules of discipline. Among these we may reckon the society of Friends, or, as they are usually denominated, Quakers.

The Quakers are a religious sect, which took its rise about the middle of the 17th century. A summary account of their tenets having been published by themselves, the following is abstracted from it.

"They believe in one eternal God, the Creator and Preserver of the universe, and in Jesus Christ, his Son, the Messiah and Mediator of the new covenant."

"When they speak of the miraculous conception, birth, life, miracles, death, resurrection, and ascension of our Saviour, they use scriptural terms, and acknowledge his Divinity."

"To Christ alone they give the title of the Word of God, and not to the scriptures, although they highly esteem these sacred writings, in subordination to the spirit from which they were given forth."

"They believe (and it is their distinguishing tenet), that every man coming into the world is endued with a measure of the light, grace, or good spirit of Christ, by which, as it is attended to, he is enabled to distinguish good from evil, and to correct the corrupt propensities of his nature, which mere reason is altogether insufficient to overcome."

"They think the influence of the Spirit especially necessary to the performance of worship; and consider as obstructions to pure worship, all forms which divert the attention of the mind from the secret influence of this unction from the Holy One. They think it incumbent on Christians to meet often together, and to wait in silence to have a true sight of their condition bestowed upon them; believing even a single sigh arising from such a sense, to be more acceptable to God than any performance, however specious, which originates in the will of man."

"As they do not encourage any ministry but that which is believed to spring from the influence of the Holy Spirit, so neither do they restrain this influence to persons of any condition in life, or to the male sex alone; but as male and female are one in Christ, they allow such of the female sex as are endued with a qualification for the ministry, to exercise their gifts for the general edification of the church."

"Respecting baptism, and what is termed the Lord's supper, they believe that the baptism with water, administered by John, belonged to an inferior and decreasing dispensation."

"With respect to the other rite, they believe that communion between Christ and his

church is not maintained by any external performance; but only by a real participation of his divine nature by faith."

"They declare against oaths and war, abiding literally by Christ's positive injunction, "Swear not at all." From the precepts of the gospel, from the example of our Lord, and from his spirit in their hearts, they maintain that wars and fightings are repugnant to the gospel."

"They disuse the names of the months and days which were given in honour of the heroes or false gods of the heathens; and the custom of speaking to a single person in the plural number, as having arisen also from motives of adulation. Compliments, superfluity of apparel and furniture, outward show of rejoicing and mourning, and observations of days and times, they esteem to be incompatible with the simplicity and sincerity of a Christian life; and public diversions, gaming, and other vain amusements of the world, they condemn as a waste of time, and diverting the attention of the mind from the sober duties of life."

"This society hath a discipline established among them, the purposes of which are the relief of the poor, the maintenance of good order, the support of the testimonies which they believe it is their duty to bear to the world, and the help and recovery of such as are overtaken in faults."

"It is their decided judgment that it is contrary to the gospel to sue each other in a court of law. They enjoin all to end their differences by speedy and impartial arbitration, according to rules laid down. If any refuse to adopt this mode, or, having adopted it, to submit to the award, it is the rule of the society that such be disowned."

The Methodists form a very considerable body in this country. This sect originated from a society, which was founded in 1729, by one Mr. Morgan and Mr. John Wesley. In the month of November that year, the latter, being then fellow of Lincoln college, began to spend some evenings in reading the Greek New Testament, along with Mr. Charles Wesley, student, Mr. Morgan, commoner of Christ's Church, and Mr. Kirkham, of Merton college. Three years after, they were joined by Mr, Ingham, Mr. Broughton, and Mr. Hervey; and in 1735, by Mr. George Whitfield, then in his 18th year.

This society attained the name of Methodists from the strict regularity of their living. Besides their attendance on private and social worship, and their frequent receiving the communion, they attracted universal notice by their visiting the sick, the poor, and the prisoners in the gaol. They instituted a fund for the relief of the poor; and, the better to accomplish their benevolent designs, Mr. Wesley abridged himself of all the superfluities, and some of the necessaries of life; and, by proposing the scheme to some gentlemen, they quickly increased their funds to 80*l.* a-year.

In 1735, many of the members of this fraternity dispersed; Messrs. J. and C. Wesley, Ingham, and Delamotte, embarking with general Oglethorp as missionaries to Georgia. It is not our intention to follow them in their voyage to the Western continent, but to give a brief and impartial account of their labours in the United Kingdom.

On Mr. Wesley's return from a visit which he made to count Zinzendorf, in 1738, he applied himself with the greatest assiduity and success to the propagation of this doctrine. Multi udes of converts were made in various parts of the kingdom; and the reproaches poured upon him by his opponents, seem to have rendered his zeal more fervent if possible than before. His original plan seems to have been to make an union of clergymen, and disseminate his principles by their means. Finding this to be impracticable, he had recourse to lay preachers, who willingly yielded obedience to one who was so far their superior in knowledge and abilities; and thus he became the head of a sect.

From the year 1738 to 1747, Mr. Wesley and his itinerants were employed in various parts of England. In 1747 he went over to Dublin, where a society had been formed by one Mr. Williams, a clergyman. Here they proved so successful, notwithstanding the great number of catholics and the violence of their other opponents, that in 1750, they had erected meeting houses in every part of the kingdom, and had formed 29 circuits, which employed 67 itinerants, besides a considerable number of local preachers. In Scotland their labours have not been equally successful, for in 1790, there were only eight circuits supplied by 20 itinerants.

Mr. Whitfield was equally indefatigable, and probably more successful, as to his personal labours, than Mr. Wesley. He soon became extremely popular, and collected numerous followers in England, Scotland, and Ireland, as well as in America. He was patronised by the late countess of Huntingdon, by whose name his followers are generally distinguished.

The other denominations of protestant dissenters may generally be reduced to these three: Presbyterians, Independents, and Baptists.

The Presbyterians are of two kinds; those who conform to the doctrines and discipline of the kirk of Scotland, and those who have assumed the name of Unitarians, as expressive of their dissent from what is called the orthodox belief respecting the Trinity and the divinity of Christ.

The Independents are generally Calvinists, and are styled Independents from their forming out of each congregation a society, which holds itself to be fully competent to the transacting of all ecclesiastical concerns.

The Baptists adopt the same mode of church government with the Independents, but differ from them in baptizing only adults, and that by immersion. To these sects may be added the Moravians, of whom we intend to speak more largely in our account of Germany.

The Catholics in England are not numerous, but are many of them of antient families, and are considered as more tolerant than their brethren in Ireland or on the continent.

The Jews have several synagogues at London and other places; but though they possess many privileges do not so much abound in this country as in Holland, Poland, or many others.

Free thinkers, or Deists, are such as professedly renounce revelation, and follow

what they style the religion of nature. Such were Toland, Tindal, Bolingbroke, Shaftesbury, Blount, Clubb, Hume, and Mandeville. These abound more in the higher than in the lower circles; but their numbers are at this time undoubtedly diminishing

The religious and benevolent societies which are supported by the inhabitants of the United Kingdom are equally numerous and respectable. Such are, 1st. The society for the propagation of the gospel in foreign parts which was instituted by William III. in 1701. 2nd. The society for promoting Christian knowledge. 3rd. Society in Scotland for the same purpose which has laboured for the conversion of the Highlanders. 4th. The society for promoting religious knowledge among the poor. 5th. The London Missionary society. 6th. The Baptists Missionary society. 7th. The Edinburgh Missionary society. 8th. The British and Foreign Bible society. 9th. The religious tract society. 10th. The royal Humane society. 11th. The Philanthrophic society for the prevention of crimes, &c. &c. &c.

The Universities of England are two, Oxford and Cambridge: in Scotland four, St. Andrews, Glasgow, Aberdeen, and Edinburgh; in Ireland one, that of Dublin, founded by queen Elizabeth and very richly endowed.

In each of these universities there are four faculties; viz. Theology, Law, Physic, and the Arts and Sciences, comprehending methematics, natural and moral philosophy, &c. and in Oxford and Cambridge music is considered as a fifth faculty. In each of these faculties there are two degrees, those of Bachelor and Doctor, only in the faculty of Arts the upper degree is styled that of Master, not Doctor.

Of public schools there are a very considerable number, among the principal are to be reckoned those of Eton and Westminster.

Some branches of literature may now be considered as stationary or retrogressive, while others are making rapid progress towards perfection. To the former of these may be referred Poetry, and the pure Mathematics; to the latter History, Geography, Botany, Chemistry, and Natural Philosophy.

The first place among our literary societies is claimed by the Royal Society, after this follow the Royal Society of Edinburgh, the Medical Society of London, the literary and Philosophical Society at Manchester, the Royal Irish Academy, the Society for promoting the discovery of the interior parts of Africa, &c.

Other societies have successfully extended their influence to the mechanical arts and manufacturers, all of which are at present in a state of rapid improvement.

Great Britain is, of all other countries, the most proper for trade; as well from its situation as an island, as from the freedom and excellency of its constitution, and from its natural products, and considerable manufactures. For exportation, our country produces many of the most substantial and necessary commodities; as butter, cheese, corn, cattle, wool, iron, lead, tin, copper, leather, copperas, pit-coal, alum, saffron, &c. Our corn sometimes preserves other countries from starving. Our horses are the most serviceable in the world, and highly valued by all nations for their hardiness, beauty, and strength. With beef, mutton, pork, poultry, biscuit, we victual, not only our own fleets, but many fore n vessels that come and go. Our iron we export, manufactured in

great guns, carcases, bomos, &c. Prodigious and almost incredible is the value likewise of other goods from hence exported, viz. hops, flax, hemp, hats, shoes, household-stuff, ale, beer, red-herrings, pilchards, salmon, oysters, liquorice, watches, ribbands, toys, &c.

There is scarcely a manufacture in Europe, but what is brought to great perfection in England. The woollen manufacture is the most considerable, and exceeds in goodness and quantity that of any other nation. Hard-ware is another capital article: locks, edge-tools, guns, swords, and other arms, are of superior excellence; household utensils, of brass, iron, and pewter, also are very great articles; and our clocks and watches are in great esteem.

Of the British commerce, that branch which we enjoyed exclusively, viz the commerce with our colonies, was long regarded as the most advantageous. Yet, since the separation of the American States from Great Britain, the trade, the industry, and manufactures of the latter have continually increased. New markets have opened, the returns from which are more certain and less tedious than those from America. By supplying a greater variety of markets, the skill and ingenuity of our artizans have taken a wider range, the productions of their labour have been adapted to the wants, not of rising colonies, but of nations the most wealthy and the most refined; and our commercial system, no longer resting on the artificial basis of monopoly, has been rendered more solid, as well as more liberal. The trade of England to the United States, in a variety of articles, is likewise very considerable.

The principal islands belonging to the English in the West Indies are Jamaica, Barbadoes, St. Christopher's, Grenada, Antigua, St. Vincent, Dominica, Anguilla, Nevis, Montserrat, the Bermudas or Somer's Islands, and the Bahama or Lucayan Islands in the Atlantic ocean, besides Martinico and St. Lucia, lately taken from the French.

The English trade with their West India Islands consists chiefly in sugar, rum, cotton, logwood, cocoa, coffee, pimento, ginger, indigo, materials for dyers, mahogany, and machineel planks, drugs, and preserves; for these, the exports from England are osnaburghs, a coarse kind of linen, with which the West Indians now clothe their slaves; linen of all sorts, with broad-cloth and kerseys, for the planters, their overseers, and families; silks and stuffs for their ladies, and household servants; hats, red caps for their slaves of both sexes; stockings and shoes of all sorts; gloves and millinery ware, and perukes; laces for linen, woollen, and silks; strong beer, pale beer, pickles, candles, butter, and cheese; iron-ware, as saws, files, axes, hatchets, chissels, adzes, hoes, mattocks, gouges, planes, augurs, nails, lead, powder, and shot; brass and copper-wares; toys, coals, and pantiles; cabinet-wares, snuffs, and in general whatever is raised or manufactured in Great Britain, also negroes from Africa, and all sorts of India goods.

The trade of England to the East Indies constitutes one of the most stupendous political as well as commercial machines that is to be met with in history. The trade itself is exclusive, and lodged in a company, which has a temporary monopoly of it, in con-

sideration of money advanced to the government. This company exports to the East Indies all kinds of woollen manufacture; all sorts of hard-ware, lead, bullion, and quicksilver. Their imports consist of gold, diamonds, raw silks, drugs, tea, pepper, arrack, porcelain or china ware, saltpetre for home consumption; and of wrought silks, muslins, calicoes, cottons, and all the woven manufactures of India, for exportation to foreign countries.

To Turkey, England sends, in her own bottoms, woollen cloths, tin, lead, and iron, hardware, iron utensils, clocks, watches, verdegris, spices, cochineal, and logwood. She imports from thence raw silks, carpets, skins, dying drugs, cotton, fruits, medicinal drugs, coffee, and some other articles. Formerly the balance of this trade was 500,000*l.* annually, in favour of England. The English trade was afterwards diminished through the practices of the French; but the Turkey trade at present is at a very low ebb with the French as well as the English.

England exports to Italy woollen goods of various kinds, peltry, leather, lead, tin, fish, and East India goods; and brings back raw and thrown silk, wines, oil, soap, olives, oranges, lemons, pomegranates, dried fruits, colours, anchovies, and other articles of luxury: the balance of this trade to England is annually about 200,000*l.*

To Spain England sends all kinds of woollen goods, leather, tin, lead, fish, corn, iron and brass manufactures, haberdashery wares, assortments of linen from Germany and elsewhere, for the American colonies; and receives in return, wines, oils, dried fruits, oranges, lemons, olives, wool, indigo, cochineal, and other dying drugs, colours, gold and silver coin.

Portugal formerly was, upon commercial accounts, the favourite ally of England; whose fleets and armies have more than once saved her from destruction. England sends to this country almost the same kind of merchandizes as to Spain, and receives in return vast quantities of wines, with oils, salt, dried and moist fruits, dying drugs, and gold coin.

The treaty of commerce between England and France has been so variously represented, that it is not easy accurately to estimate its advantages; but whatever they were, a total suspension of them has now taken place by the present war, and their return is very uncertain.

England sends to Flanders, serges, flannels, tin, lead, sugars, and tobacco; and receives in return, laces, linen, cambrics, and other articles of luxury, by which England loses upon the balance 250,000*l.* sterling yearly.

To Germany England sends cloths and stuffs, tin, pewter, sugars, tobacco, and East India merchandize; and brings thence vast quantities of linen, thread, goat skins, tinned plates, timbers for all uses, wines, and many other articles. Before the late war, the balance of this trade was thought to be 500,000*l.* annually, to the prejudice of England: but that sum is now greatly reduced, as most of the German princes find it their interest to clothe their armies in English manufactures.

We have already mentioned the trade with Denmark, Norway, Sweden, and Russia, which formerly was against England; but the balance was lately vastly diminished, by the great improvements of her American colonies, in raising hemp, flax, making pot-ashes, iron works, and tallow, all which used to be furnished to her by the northern powers.

The goods exported to Poland, chiefly by the way of Dantzic, are many, and the duties upon them low. Many articles are sent there, for which there is no longer any demand in other countries. Poland consumes large quantities of our woollen goods, hardware, lead, tin, salt, sea-coal, &c. and the exports of manufactured tobacco is greater to Poland than to any other country. The balance of trade may be estimated much in our favour, but the late change of circumstances in Poland must stop that trade.

To Holland England sends an immense quantity of many sorts of merchandize; such as all kinds of woollen goods, hides, corn, coals, East India and Turkey commodities, tobacco, tar, sugar, rice, ginger, and other American productions; and makes return in fine linen, lace, cambrics, thread, tapes, incle, madder, boards, drugs, whalebone, train-oil, toys, and many other things; and the balance is usually supposed to be much in favour of England.

England sends to the coast of Guinea sundry sorts of coarse woollen and linen, iron, pewter, brass, and hardware manufactures, lead, shot, swords, knives, fire-arms, gunpowder, and glass manufactures. And, besides its drawing no money out of the kingdom, it lately supplied the American colonies with negro slaves, amounting in number to above 100,000 annually: but this trade is now happily abolished. The other returns are in gold-dust, gum, dying and other drugs, red-wood, Guinea-grains, and ivory.

To Arabia, Persia, China, and other parts of Asia, England sends much foreign silver coin and bullion, and sundry English manufactures of woollen goods, and of lead, iron, and brass; and brings home from those remote regions muslins and cottons of many various kinds, calicoes, raw and wrought silk, chintz, teas, porcelain, gold-dust, coffee, saltpetre, and many other drugs. And so great a quantity of those various merchandizes are exported to foreign European nations, as more than abundantly compensates for all the silver bullion which England carries out.

During the infancy of commerce to foreign parts, it was judged expedient to grant exclusive charters to particular bodies or corporations of men; hence the East India, South Sea, Hudson's Bay, Turkey, Russia, Royal African companies; but the trade to Turkey, Russia, and Africa, is now laid open; though the merchant who proposes to trade thither must become a member of the company, be subject to their laws and regulations, and advance a small sum at admission, for the purposes of supporting consuls, forts, &c.

The number of the inhabitants of this country is a subject that has long exercised the judgment of those who are skilled in the science of political arithmetic; but it is now ascertained by an actual enumeration, taken in 1801, by the authority of parliament, and is as follows.

THE POPULATION OF ENGLAND, SCOTLAND, AND WALES.

Summary.	Males.	Females.	Total.
England	3,987,935	4,343,499	8,331,434
Scotland	734,487	864,581	1,599,068
Wales	257,178	284,368	541,546
Army	198,351		198,351
Navy,	126,279		126,279
Seamen in registered vessels	144,558		144,558
Convicts	1,410		1,410
Grand Total	5,450,198	5,492,448	10,942,646

In England 1,524,227 persons are employed chiefly in agriculture, and 1,789,532 in trade, manufactures, and handicrafts. In Wales 189,062 are employed in agriculture, and 53,822 in trade, &c.

London, the metropolis of England, and perhaps the most populous and rich city on the face of the globe, is situated in an extensive plain, or valley, watered by the Thames, only confined on the north by a few small elevations; being a place of great antiquity, and first mentioned by Tacitus. It was in former times of far less extent, and surrounded with walls, but now includes Southwark, in itself a city, on the other side of the Thames; and Westminster, another city on the west; so that, like some places of antient geography, it might be named Tripoles, or three cities. The noble river Thames is here about 440 yards in breadth, and is crowned with three bridges, the most antient of which was formerly covered with houses and shops, now removed; but the inconveniences it presents to navigation cannot be so easily remedied. The Thames is crowned with a forest of masts, and conveys into London the wealth of the globe, forming an excellent port, without the danger of exposure to maritime enmity.

It is, however, a great defect, that instead of open quays and streets on the banks of the stream, the view is obstructed, on both sides, by irregular masses of buildings, which do not even admit of a path. London presents almost every variety which diversifies human existence; upon the east it is a sea-port, replete with mariners, and with the trades connected with that profession. In the centre it is the seat of numerous manufactures, and prodigious commerce; while the western, or fashionable extremity, presents royal and noble splendour, amidst scenes of the highest luxury, and most ruinous dissipation.

Few cities can boast a more salubrious situation, the subjacent soil being pure gravel, by which advantage, united with extensive sewers, the houses are generally dry, cleanly, and healthy. Provisions and fuel are poured into the capital, even from

distant parts of the kingdom, the latter article being coals, from the counties of Northumberland and Durham, transferred by sea, and thence denominated sea-coal. The smoke is esteemed to purify the dampness of the air, but injures the beauty of the edifices; the sublime architecture of St. Paul's for instance, being obscured by sable weeds. London requires in one year 101,075 beeves, 707,456 sheep, with calves and pigs in proportion; the vegetables and fruits annually consumed in the year, are valued at 1,200,000*l.* sterling.

Its length from Hyde-park Corner on the West, to Poplar on the East, is about six miles: the breadth unequal, from three miles to one and less; the circumference may be about 16 miles. The houses are almost universally of brick, and disposed with insipid similarity; but in recompence, most of the streets are excellently paved, and have convenient paths for foot passengers, a mark of respect to the common people, almost unknown to the capitals on the continent. Another national feature, is the abundance of charitable foundations, for almost every infirmity and distress incident to human nature. The multitude and rich display of the shops impress strangers with astonishment, nor are they less surprized at the constant torrent of population rolling through the principal streets, nor at the swarm of carriages at all times crowding all the roads to the capital, and the nocturnal illuminations which extend even to four or five miles of the environs.

Though the impression of the tide be felt as far as Staines, the Thames, at London, and a considerable way below, is untainted with salt. Its waters are raised by machinery, and conducted in innumerable pipes for domestic uses, while the parts more remote are supplied with water from some small ponds near Hampstead, and from that laudable work of Middleton, the New River, which conveys a copious addition from the North. The water of the Thames is said to impart peculiar qualities to the liquor called porter; but this idea perhaps only tends to strengthen the monopoly of the London brewers.

The environs of London present a spectacle almost as grand and interesting as that of the metropolis itself. Extensive streets of villas and houses are continued in almost every direction, within seven or eight miles. Yet few of the public edifices in London can pretend to much magnificence. The cathedral of St. Paul's forms one of the chief exceptions; the exterior architecture of this principal cathedral of the protestant faith being majestic to a degree of sublimity, but the interior is defective in decoration. The tombs recently ordered, in imitation of those in Westminster, will contribute to obviate this remark. In the colonnade, fountains, &c. it yields to St. Peter's at Rome; and, in general, the public edifices of London are in disadvantageous positions, without proper avenues or points of prospect. It is surprising that fountains, or jets d'eau, which so much diversify the ornaments of a city, though in a garden they be puerile, should be almost unknown in London, except a diminutive specimen in one of the courts of the Temple.

Westminster abbey may claim the next rank to St. Paul's cathedral, being not only in itself a grand impressive edifice, of the Gothic class, but as being the sanctuary of the illustrious dead, of all ranks, periods, and professions, from the victo-

rious monarch down to the humble pedagogue. It was founded by Sebert, king of the East Saxons; was afterwards ruined by the Danes, and refounded by Edward the Confessor, whose tomb is the most antient now remaining. The present edifice was the work of Henry III; and Henry VII. added an elegant chapel, and his tomb, the work of Torrigiano; in the vaults under this chapel, the late monarchs and their offspring have been deposited. The body of the edifice is crowded with illustrious tombs, decreed by the nation, or erected at the expence of individuals; this part is open to general inspection; and others, more retired, are displayed by the attendants for a trifling remuneration. Adjacent are the two houses of parliament, and Westminster hall, a vast room, 230 feet long, and 70 wide, with a curious ceiling of Irish oak, and apartments on the side, in which are held the principal courts of justice.

The churches and chapels exceed 200 in number, and a few are of beautiful architecture. Some are the productions of Inigo Jones; as is also the noble banqueting-house at Whitehall, with a masterly ceiling, painted by Rubens, representing the apotheosis of James I.

Near London bridge, a pillar of 193 feet elevates its bold front above most of the spires, and is called the Monument, being destined to commemorate the conflagration of London, in the reign of Charles II. The Tower is only venerable from antient fame; and remarkable for the curiosities which it contains. The new edifice, erected by the company trading to the East Indies, has a considerable degree of elegance, and some of the halls of the companies have a respectable appearance. The Bank is a structure of the Ionic order, more remarkable for its intrinsic wealth than exterior magnificence. The architecture of the prison called Newgate is singularly appropriate. Somerset House presents an elegant specimen of recent architecture, but may, perhaps, in future times, be found as deficient in solidy, as it is at present inconvenient in the height and steepness of the stairs, and in some other respects. The terrace of the Adelphi is a pleasing piece of architecture, and presents an interesting prospect of the river.

The Pantheon is an elegant edifice resembling that at Rome, but dedicated solely to public amusement. The royal palace of St James's is an irregular building, of very modest aspect. The queen's palace, formerly Buckingham house, not only aspires to elegant convenience, but contains some valuable paintings, and an excellent library, formed solely by the taste of the reigning monarch. The palace of Kensington presents an exuberance of valuable pictures, little known and rarely visited. The houses in the West end of the town, of themselves shew the gentle gradations of rank in England, those of the chief nobility being rarely distinguishable from the others; the more remarkable are, Foley-house, the Duke of Manchester's; the late Mrs. Montague's, in Portman-square; Chesterfield house; lord Spencer's, in the Green park; Marquis of Lansdown's, Berkely-square; duke of Northumberland's, at Charing-cross; Burlington-house, with a fine colonnade behind the front wall; and those of the duke of Devonshire and the earl of Bath, all in Piccadilly; nor must Cumberland-house and Carlton-house, in Pall-Mall, be forgotten.

Next to the capital in dignity, though not in extent for opulence, is York, which is

not only the chief city of a large and fertile province, but may be regarded as the metropolis of the North of England. The name has been gradually corrupted from the antient Eboracum, by which denomination it was remarkable even in the time of the Romans, for the temporary residence and death of the Roman emperor Severus. This venerable city is divided by the river Ouse; and the gothic cathedral is of celebrated beauty, the western front being peculiarly rich, the chief spire very lofty, and the windows of the finest painted glass. York divides with Edinburgh the winter visits of the northern gentry.

But Liverpool, in Lancashire, is now generally allowed to approach the nearest to London in wealth and population, being the seat of a vast commerce, which has been continually on the increase, since the beginning of the last century, when it was merely a village. It is first mentioned in the reign of William the Conqueror; yet in Leland's time, was not even a parish, but had only a chapel, the parish-church being that of Walton. In 1699, Liverpool was admitted to the high honour of being constituted a parish. In 1710, the dock was constructed; and the chief merchants came originally from Ireland, a circumstance which has given a distinct tinge to the manners of the town. Thenceforth the progress was rapid; and in 1760, the population was computed at 25,787 souls. In 1773, they amounted to 34,407, in 1787, to 56,670; at present they may be computed at between 70 and 80,000.

The number of ships which paid duty at Liverpool, in 1757, was 1371; in 1794, they amounted to 4,265. In the African trade, a distinguishing feature of Liverpool, there was only one ship employed in 1709; in 1792, they amounted to 132. It was computed, that between the end of August, 1778, and that of April, 1779, Liverpool sent out no less than 170 privateers. In the recent act for the contribution of seamen to the royal navy, according to the ships registered in each, the estimate is as follows.

London	5725	Hull	731	Bristol	666
Liverpool	1711	Whitehaven	700	Whitby	573
Newcastle	1240	Sunderland	669	Yarmouth	506

Bristol is still a large and flourishing city, though much of its commerce with the West Indies and America have passed to Liverpool. This metropolis of the West of England gradually rose to eminence in the Anglo-Saxon period; and was so flourishing and opulent in the reign of Henry II. that, besides other charters, he granted the possession of Dublin in Ireland; and a colony from Bristol was accordingly transplanted.

The trade with Ireland has continued chiefly to centre in this city: even in that reign, as antient writers inform us, the port of Bristol was replete with vessels from Ireland, Norway, and other parts of Europe. Bristol is pleasantly situated at the confluence of the Froome with the Avon. Besides the cathedral, there is a large church of Gothic construction, that of Radcliffe, founded in the 13th century, and improved and repaired by Canyng or Canÿngs, an opulent merchant of the 15th century. cele-

brated by William of Worcester. In the treasury room of this church, is an antient chest, the source ascribed to several literary forgeries. The hot wells in the neighbourhood appeared to have been known in 1480; but the water was chiefly used externally, till about the year 1670, when a baker dreaming that his diabetes was relieved by drinking the water, he tried the experiment and recovered. Since that period its reputation has increased, and many commodious and elegant erections have contributed to recommend these wells to invalids. In the adjacent rocks are found beautiful crystals, which, before the introduction of artificial gems, were greatly in fashion for female ornaments. The trade of Bristol is chiefly with Ireland, the West Indies, and North America, Hamburgh, and the Baltic; that with Guinea, not the most laudable, is resigned to Liverpool. By the navigation of the two rivers, Severn and Wye, Bristol also engrosses most of the trade of Wales. In 1787, Bristol employed about 1600 coasting vessels, and 416 ships engaged in foreign commerce. Inhabitants about 80,000.

The proximity may here authorize the mention of Bath, esteemed the most elegant town in England. The hot baths, from which it derives its name, were known in the Roman times, nor was their celebrity lost even in the dark period of the Anglo Saxon history But the town has been greatly enlarged and decorated in the 17th century The waters are used both internally and externally, chiefly in gouty, bilious, and paralytic cases, being frequented at two times in the year, what is called the spring season, from April to June, and the autumnal, from September to December. Two thirds of the company are attracted merely by amusement, society, and dissipation, in all which it is only second to London. Situated in a vale, Bath is very hot in summer. The houses are constructed of white stone, which abounds in the vicinity.

But next to Bristol in point of opulence, must be classed the towns of Manchester, Birmingham, and Sheffield.

Manchester, in Lancashire, was known in the Roman times under the name of Mancunium, a small Roman station; but it continued in obscurity till the time of Elizabeth, when Camden mentions its manufacture of woollen cloths, then called cottons. During the civil wars under Charles I. Manchester remained in the hands of the parliament. In 1708, the inhabitants were only computed at 8,000. In 1757, they fell short of 20,000; at present they are supposed to amount to about 70,000. The cotton manufactures of Manchester are sufficiently known over Europe; and the machinery, greatly indebted to the genius of Arkwright, excites astonishment at the progress of human art and industry.

Birmingham, in Warwickshire, was originally a village, belonging to a family of the same name, whose monuments remain in the old church. Leland mentions it as a town inhabited by smiths and cutlers, in the time of Henry VIII. and by torimers, now called bit makers. The extension and improvement of Birmingham originated in a great degree from Mr. John Taylor, who introduced the manufacture of gilt buttons, and japanned and enamelled works; but the toy manufacture was known in the reign of Charles II. The great fabric, called Soho, belonging to Messrs. Boulton and Watts, is situated about two miles from Birmingham, but in Staffordshire.

Sheffield, in the most southern part of Yorkshire, is styled by Leland the chief market town in Hallamshire, (for in the north, many particular districts usurp the name of shires). The company of cutlers of Hallamshire was established by act of parliament, in 1625; but Sheffield had been distinguished for a kind of knives, called whitlers, and other articles of cutlery, as early as the 13th century; yet, till within the last half century, the manufactures of Sheffield were conveyed weekly to the metropolis, on pack-horses. In 1751, the river Don was rendered navigable to within two miles of the town, which facilitated the export. The plated goods commenced about 1758.

The other chief towns in England, not aspiring to such pre-eminence, though several be of far more importance than others, shall be classed, as before mentioned, in a kind of geographical order, beginning at the south-west, and proceeding to the north.

Falmouth, in Cornwall, the most westerly port in England, is chiefly remarkable for the arrival and dispatch of packet boats.

Exeter, in the adjacent county of Devon, is an antient respectable city. It is the seat of an extensive commerce in coarse woollen goods, manufactured in a part of Somersetshire, and in Devon and Cornwall. They are exported to Italy and other parts of the continent, to the annual value, as is supposed, of 600,000*l.* and the East India Company purchase yearly to a considerable amount. Besides the native wool of the above-mentioned counties, Exeter imports from Kent about 4000 bags a-year. Some ships are also occupied in the cod fishery of Newfoundland, and in the Greenland capture of whales. The imports are from Spain, Italy, Hamburgh, and the Baltic; and coals from the north of England and Wales. It is, moreover, the residence of many genteel families; and the frequent resort of others from the neighbouring counties.

Dorchester, the chief town of the county of Dorset, is a place of considerable antiquity, situated on the river Frome; but has no manufactures, and is only celebrated for its malt liquor.

Salisbury, the principal town of Wiltshire, is chiefly remarkable for extreme neatness, and for its cathedral, a beautiful piece of Gothic architecture, with the loftiest spire in England, the height being 400 feet. There is a manufacture of flannels, and another of cutlery goods and hardware, the superiority of the scissars being particularly noted. Wilton, in the same county, is famed for the manufacture of beautiful carpets.

Winchester, the chief city of Hampshire, was, for many centuries, the metropolis of England, a pre-eminence which it did not wholly lose till the 13th century. The port was Southampton, but the superior safety and convenience of that of London, gradually restored the latter to that metropolitan dignity which it held in the Roman period. Winchester remains a venerable city, with many vestiges of antient fame and splendour. It is situated in a bottom, amid open chalky downs, upon the small river Itchen. The cathedral rather impresses the idea of majestic gravity, than of magnificence; and has no spire, having been erected before that mode of architecture was used. The ashes of several Saxon monarchs are here preserved with reverence. Not far from the cathedral stands the celebrated college, founded by William of Wickham, and which

has sent forth many illustrious characters. The regulations of this school are, in some instances, peculiar and severe; but in this, and the other grand English seminaries, the equality of the pupils, except in respect of age and abilities, and even the subservency in which the younger are held by the elder, tend to steel and fortify the mind against the subsequent cares and emulations of life. In the centre of the city is a small, but most elegant Gothic cross; and at the western extremity is the shell of a palace, built under the direction of sir Christopher Wren, yet heavy and inelegant; it was began by Charles II. but left unfinished at his death. It has since been used for French prisoners, and in 1796 was the residence of about 640 emigrant priests from France.

In the same county is situated Portsmouth, the grand naval arsenal of England. The harbour is noble and capacious, narrow at the entrance, but spreading out into an inland bay, five or six miles in length, and from two to four in breadth. The advantages derived from nature have been improved by the art and industry of successive generations; and to a patriot, Portsmouth presents one of the most interesting scenes to be found in the British dominions. The regular fortifications towards the land, in themselves happily a novelty to the British eye; the magnitude and variety of the maritime objects and manufactures, and the prospect of Spithead, the grand focus of naval armament, conspire, with a thousand relative ideas concerning the power of England, supreme in every sea, to excite our astonishment and exultation.

Lewes is esteemed the chief town of Sussex; the situation is lofty and picturesque, especially the site of the antient castle, belonging to the powerful earls of Warren and Sussex. Beneath, in a pleasant plain watered by the river Ouse, stand the ruins of an antient castle.

Chichester retains some little traffic.

Brighthelmstone is a fashionable resort for the sea air and bathing; an extensive beach extends four miles under lofty cliffs, and on the other side are wide open downs, composed of numerous verdant hills, diversified with winding cavities: towards Shoreham are some pits of a kind of bitumen, which might, perhaps, be used in some manufacture. When dried and rolled by the waves, it forms balls of various sizes, frequent on the beach, and formerly used as fuel by the poor, though since forbidden, on account of the noxious smell. Brighthelmstone not only presents the nearest open shore to the capital, but it is distinguished for the peculiar mildness and salubrity of the air.

Canterbury, the chief town of Kent, and the metropolis of the English church, is chiefly remarkable for ecclesiastical antiquities; and the county town is Maidstone, noted for hops and thread. Kent presents many other important towns, as Deptford, Greenwich, Woolwich, Gravesend, Chatham, Rochester, and the fashionable resorts of Margate, Ramsgate, and Tunbridge. Dover and Deal are remarkable havens.

Having completed this brief survey of the chief towns to the south of the Severn and the Thames, those of the middle and northern counties may be again commenced from the west.

Hereford, the capital of a county bordering on Wales, was known in the Saxon times as an episcopal see. The castle, supposed to have been founded in the reign of the

Confessor, is on the left bank of the river Wye. The cathedral is large, but the town presents little remarkable, having gone into great decay: the only manufacture is that of gloves.

Gloucester, the capital of the county so called, is admired for the regularity of the four principal streets, joining in the centre of the town. It avails itself of the traffic of the Severn, which, among other fish, affords a luxurious supply of lampreys. This town has been recently celebrated for its neatness and the cheapness of its provisions.

Worcester is also situated on the noble river Severn, over which there is a beautiful bridge. The manufactures are chiefly gloves and woollen stuffs; and the porcelain maintains a high reputation.

On the east, the first town of note is Coventry, esteemed the most inland and centrical of the English towns; whence, perhaps, the military phrase of sending a man to Coventry, where he would be the most remote from service. The manufactures are chiefly ribbons, with a few gauzes and camlets. The beautiful cross, erected in 1541, after being much damaged by lapse of years, has been taken down.

The next memorable town is Norwich, the capital of Norfolk, from its size and consequence justly styled a city. It is, however, not mentioned till the year 1004 when it was ruined by the Danes. The worsted manufactory is supposed to have been introduced here by the Flemings, in the 12th century, and was followed by that of sayes, arras, bombazeens, &c. Of late, the damasks, camlets, crapes, stuffs, &c. here wrought, have been computed at the yearly value of 700,000*l.*; but the fashionable use o cottons, and the interruption of commerce by war, have considerably lessened the consumption. The wool is chiefly from the counties of Lincoln, Leicester, and Northampton; the chief exports to Holland, Germany, and the Mediterranean. Norwich is of course opulent and extensive; but the streets are confined and devious.

Yarmouth is a noted sea-port, with a beautiful quay, and remarkable for its fishery of mackarel in May and June, and herrings in October and November: the latter, cured by salt, and dried in the smoke of wood, are called red herrings, and, besides home consumption, form a considerable article of export to Spain and Italy.

In proceeding northward, Lincoln must arrest our attention, though now much fallen from its former fame. The interior of the cathedral is admired for its lightness and magnificence. The sheep of this county form a celebrated breed, but the wool goes chiefly to Norwich. Lincoln trades in coals, imported on the Trent.

In a topography of England, Leicester and Shrewsbury might deserve description, but its geography can only embrace the most important topics. The city of Chester must claim the next consideration. It is of Roman origin, and the chief streets are singular in their construction, being excavated beneath the level of the ground, while a covered portico, in the front of the houses, affords an elevated and sheltered foot-path; beneath are the shops and warehouses, on the level of the streets, to which the passengers descend by occasional stairs. The trade of Chester is not considerable, but it carries on a share of the traffic with North Wales; and its two annual fairs are

famous for the sale of Irish linens. It is the favourite residence of many genteel families of North Wales.

Near an extensive bay of the Irish sea, which might now be termed the bay of Lancaster, while antiquaries affect to retain the Roman name of Moricambe, stands Lancaster, an antient and populous town. The name is in the North pronounced Loncaster, the proper etymology, as it stands on the river Lon. When the counties of Cumberland and Westmoreland belonged to the Scots, this was regarded as a kind of frontier place, and was defended by a strong castle, situated on a commanding eminence. Lancaster afterwards gave the title of duke to princes of the royal blood; and the contentions of the houses of York and Lancaster are well known. There is a bridge of five arches over the Lon, which opens into a considerable haven; the seat of a moderate commerce, especially with the West Indies.

On the east, the extensive province of Yorkshire contains many flourishing towns besides the capital, York, and Sheffield, already described. On the Humber, the wide receptacle of many rivers, stands the great sea-port of Hull, or Kingston-upon-Hull; the latter name being only that of the rivulet. The town was founded by Edward I.; several privileges were obtained from Richard II.; and the first staple of trade was stock-fish, imported from Iceland. In the civil wars of the 17th century, Hull displayed the first flag of defiance against the monarch. The harbour is artificial, and is supposed to present the largest dock in the kingdom. The trade is important with America and the south of Europe, but chiefly with the Baltic; and several ships are employed in the northern whale fishery. The coasting traffic is extensive in coals, corn, wool, and many manufactures; and Hull supplies the commerce of many northern counties, having not only communication with the Trent, and other branches of the Humber, but with the rivers and canals of Yorkshire.

Leeds, Bradford, Halifax, and Wakefield, are the chief centres of the great manufactures of woollen cloths and stuffs. Leeds is the principal mart for broad cloth, or what foreigners term fine English cloth. It is situated on the river Eyre, in an extensive vale; and the population is computed at 16,000: the cloths are woven in the neighbouring villages, but are dyed, prepared, and sold at Leeds. The cloth-hall appropriated to the sale is a vast edifice; and the whole business is transacted within the space of an hour on the market-days. Halifax is on an elevated situation, and very populous. It is the chief market for the thinner woollen cloths, such as stuffs, calimancoes, &c. Scarborough, on the eastern coast, is a place of celebrated resort for sea-bathing, and the mineral water; the site is romantic, but the port is small, and chiefly frequented by fishing vessels.

Durham is a pleasant and venerable city, extending partly over an eminence; the river Were, winding around in the form of a horse-shoe, renders it peninsular. Near the neck of land is placed the castle, of which little more than the keep remains; which is surrounded by the pleasant garden of the bishop's adjacent palace. Towards the point of the peninsula stands the cathedral, a most august edifice, in a most august situation, with deep declivities on the south and west, down to the river; the banks

of which are finely wooded, and rich in the wild beauties of nature, which have been improved, not injured, by the taste and opulence of the clergy. The bridge on the east is narrow, and meanly executed; but on the south there is an elegant modern bridge; and on the west, that of bishop Flambard is admired for the lightness and beauty of the arches.

About a mile from the town, on this side, stands Nevil's cross, where David II. king of Scotland, was taken prisoner, after a bloody conflict. The cathedral was built about the year 1004, at least the lower part, which belongs to what is called the Saxon form of architecture; and is now repairing, at the expence of the bishop and chapter. Some branches of the woollen manufacture are carried on at Durham, and a few elegant carpets have been lately made there, in a kind of Mosaic form.

Stockton on the river Tees, Sunderland at the mouth of the Were, and South-Shields on that of the Tyne, are sea-port towns in the bishopric, (for so the county of Durham is commonly styled in the north), of considerable size, trade, and population. Harts-la-Pool is only a bathing place.

On the river Tyne stands Newcastle, so termed from a fortress erected by Edward I. This is a large and populous town, or rather city, placed on the centre of the grand coal-mines, in the counties of Durham and Northumberland, which have for centuries supplied London and most of the east and south of England with that fuel; which has perhaps contributed more to the manufactures and commerce, and consequent wealth and power of this kingdom, than any other material or circumstance. The coal fleets sometimes amount to 500 sail; their station is at Shields, and the quays of Jarrow and Willington. Even as a nursery of seamen, the trade is invaluable. In all parts of the neighbourhood are seen large carts, laden with coals, and proceeding towards the port, on inclined planes, without the help of horses or men, to the great surprise of the stranger. Near Newcastle are also found quarries of grindstone, and many glass-houses smoke around, the productions of which have been recently of remarkable purity. Their exports are pickled salmon, lead, salt, butter, and tallow. The suburb of Gates-head stands on the south of the Tyne; and is connected with the city by a grand bridge. The shops and crowded streets recal the idea of London; but the latter are generally narrow, steep, and incommodious.

Berwick-upon-Tweed, on the Scottish side of the river, is a large, populous, and well-built town. The chief remaining town in England is Carlisle, the capital of the county of Cumberland, placed at the confluence of the rivers Pettril and Caldew with the Eden. The old fortifications remain nearly entire. It is supposed to have been the antient Luguballia; but neither the castle nor cathedral are remarkable. The chief manufactures are linens, printed and checked, whips, and fish-hooks. The town is little populous; and is chiefly memorable for transactions in the antient wars between Scotland and England.

Edinburgh, the capital of Scotland, naturally claims the first place in this division. The castle, before the use of artillery, was deemed to be impregnable. It was probably built by the Saxon king Edwin, whose territory reached to the Frith of Forth, and who gave his name to Edinburgh, as it certainly did not fall into the hands of the Scots

till the reign of Indolphus, who lived in the year 953. The town was built for the benefit of protection from the castle; and a more inconvenient situation for a capital can scarcely be conceived; the high street, which is on the ridge of a hill, lying east and west, and the lanes running down its sides north and south. In former times, the town was surrounded by water, excepting towards the east; so that when the French landed in Scotland, during the regency of Mary of Guise, they gave it the name of Lislebourg. This situation suggested the idea of building very lofty houses, divided into stories, each of which contains a suit of rooms, generally large and commodious, for the use of a family; so that the high street of Edinburgh, which is chiefly of hewn stone, broad, and well paved, makes a most august appearance, especially as it rises a full mile in a direct line and gradual ascent from the palace of Holyrood-house, on the east, and is terminated on the west by the rude majesty of its castle, built upon a lofty rock, inaccessible on all sides, except where it joins to the city. The castle not only overlooks the city, its environs, gardens, the new town, and a fine rich neighbouring country, but commands a most extensive prospect of the river Forth, the shipping, the opposite coast of Fife, and even some hills at the distance of 40 or 50 miles, which border upon the Highlands.

This crowded population, however, was so extremely inconvenient, that the English, who seldom went farther into the country, returned with the deepest impression of Scotch nastiness, which became proverbial. The castle has some good apartments, a tolerable train of artillery, and has not only a large magazine of arms and ammunition, but contains the regalia, which were deposited here under the most solemn legal instruments of their never being removed from thence. All that is known at present of those regalia is contained in the instrument which was taken at that time of their being deposited, where they are fully described.

Facing the castle, as we have already observed, at a mile's distance, stands the abbey, or rather palace, of Holyrood-house. The inner quadrangle of this palace, begun by James V. and finished by Charles I. is of magnificent modern architecture, built according to the plan and under the direction of sir William Bruce, a Scotch gentleman of family, and one of the greatest architects of that age. Round the quadrangle runs an arcade, adorned with pilasters; and the inside contains magnificent apartments for the duke of Hamilton, who is hereditary keeper of the palace, and for other noblemen. Its long gallery contains figures, some of which are from portraits, but all of them painted by modern artists, of the kings of Scotland, down to the time of the revolution. James VII. when duke of York, intended to have made great improvements about this palace; for at present nothing can be more uncomfortable than its situation, at the bottom of bleak, unimproved crags and mountains, with scarcely a single tree in its neighbourhood.

The chapel belonging to the palace, as it stood when repaired and ornamented by that prince, is thought to have been a most elegant piece of Gothic architecture. It had a very lofty roof, and two rows of stone galleries, supported with curious pillars. It was the conventual church of the old abbey. Its inside was demolished and rifled of all its rich ornaments, by the fury of the mob at the revolution, which even broke into the

repositories of the dead, and discovered a vault till that time unknown, which contained the bodies of James V. his first queen, and Henry Darnley. The walls and roof of this antient chapel gave way, and fell down on the 2nd and 3d of December, 1768, occasioned by the enormous weight of a new stone roof laid over it some years before, which the walls were unable to support.

The hospital, founded by George Herriot, goldsmith to James VI. commonly called Herriot's Work, stands on the south-west of the castle, in a noble situation. It is the finest and most regular specimen which Inigo Jones (who went to Scotland as architect to queen Anne, wife of king James VI.) has left us of his Gothic manner, and far exceeding any thing of that kind to be seen in England. One Balcanquhall, a divine, whom Herriot left his executor, is said to have prevailed upon Jones to admit some barbarous devices into the building, particularly the windows, and to have insisted that the ornaments of each should be somewhat different from those of the others. It is, notwithstanding, upon the whole, a delightful fabric, and adorned with gardens, not inelegantly laid out. It was built for the maintenance and education of poor children, belonging to the citizens and tradesmen of Edinburgh, and is under the direction of the city magistrates.

Among the other public edifices of Edinburgh, before the revolution, was the college, which claims the privileges of an university, founded by James VI. and by him put under the direction of the magistrates, who have the power of chancellor and vice-chancellor. Little can be said of its buildings, which are calculated for the sober literary manners of those days; they are, however, improvable, and may be rendered elegant. What is of far more importance, it is supplied with excellent professors in the several branches of learning; and its schools, for every part of the medical art, are reckoned equal to any in Europe. This college is provided with a library; founded by one Clement Little, which is said to have been of late greatly augmented; and a museum belonging to it was given by sir Andrew Balfour, a physician. It contains several natural and some literary curiosities, which one would little expect to find at Edinburgh.

The parliament square, or, as it is there called, close, was formerly the most ornamental part of this city; it is formed into a very noble quadrangle, part of which consists of lofty buildings; and in the middle is a fine equestrian statue of Charles II. The room built by Charles I. for the parliament house, though not so large, is better proportioned than Westminster-hall; and its roof, though executed in the same manner, has been, by good judges, held to be superior. It is now converted into a court of law, where a single judge, called the lord-ordinary, presides by rotation; in a room near it sit the other judges; and adjoining are the public offices of the law, exchequer, chancery, shrievalty, and magistracy of Edinburgh; and the valuable library of the lawyers. This equals any thing of the kind to be found in England, or perhaps in any part of Europe, and was at first entirely founded and furnished by lawyers. The number of printed books it contains is amazing; and the collection has been made with exquisite taste and judgment. It contains likewise the most valuable manuscript remains of the Scottish history, chartularies, and other papers of antiquity, with a series of medals. Adjoining the library is the room where the public records are kept; but both it, and that

which contains the library, though lofty in the roof, are miserably dark and dismal. It is said, that preparations are now carrying on, for lodging both the books and papers in rooms far better suited to their importance and value.

The high church of Edinburgh, called that of St. Giles, is now divided into four churches, and a room where the general assembly sits. It is a large Gothic building, and its steeple is surmounted by arches, formed into an imperial crown, which has a good effect to the eye. The churches and other edifices of the city, erected before the Union, contain little but what is common to such buildings; but the excellent pavement of the city, which was begun about two centuries ago by one Merlin, a Frenchman, deserves particular attention.

The modern edifices, in and near Edinburgh, such as the exchange, public offices, its hospitals, bridges, and the like, demonstrate the vast improvement of the taste of the Scots in their public works. Parallel to the city of Edinburgh, on the north, the nobility, gentry, and others, have almost completed a new town, upon a plan which does honour to the present age. The streets and squares are laid out with the utmost regularity, and the houses are built with stone, in an elegant taste, with all the conveniences that render those of England so delightful and commodious. The fronts of some are superbly finished, displaying at the same time the judgment of the builder, and the public spirit of the proprietor.

Between the old and the new town lies a narrow bottom or vale, which, agreeably to the original plan, was to have been formed into a sheet of water, bordered by a terrace-walk, and the ascent towards the new town covered with pleasure gardens, shrubberies, &c. But this elegant design fell to nothing, through the narrow ideas of the magistrates, who, finding greater benefits by letting the ground to inferior tradesmen, upon building leases, this spot, formed by nature as an agreeable opening to a crowded city, became a nuisance to the gentlemen who had been so liberal in ornamenting the buildings upon the summit. A decision of the house of lords (in which a certain great luminary of the law, equally distinguished for his taste and good sense, heartily concurred) put a stop to the mean erections.

At the west or upper end of this vale, the castle, a solid rock, not less than 20 stories high, looks down with awful magnificence. The eastern extremity is bounded by a striking object of art, a lofty bridge, the middle arch being 90 feet high, which joins the new buildings to the city, and renders the descent on each side the vale (there being no water in this place) more commodious for carriages. We are the more particular in describing this place, that the reader may form some idea of its pleasant situation, standing on an eminence, with a gentle declivity on each side, in the heart of a rich country; the view southward, that of a romantic city, its more romantic castle, and distant hills, rising to an amazing height; while the prospect northward gives full scope to the eye, delights the imagination, and fills the mind with such ideas as the works of nature alone can inspire. One agreeable prospect, however, is still wanting, a handsome clean inn or tavern, with a genteel coffee-room, towards the side that overlooks the Forth; and which might be easily accomplished by subscription; and from the great resort of travellers, could not fail to bring a profitable return.

Edinburgh may be considered, notwithstanding its castle, and an open wall which incloses it on the south side, of a very modern fabric, but in the Roman manner, as an open town; so that in fact it would have been impracticable for its inhabitants to have defended it against the rebels, who took possession of it in 1745.

Edinburgh contains a playhouse, which has now the sanction of an act of parliament; and concerts, assemblies, balls, music meetings, and other polite amusements, are as frequent and brilliant here as in any part of his majesty's dominions, London and Bath excepted.

Edinburgh is governed by a lord-provost, four bailiffs, a dean of guild, and a treasurer, annually chosen from the common council. Every company or incorporated trade choses its own deacon, and here are 14; namely, surgeons, goldsmiths, skinners, furriers, hammer-men, wrights or carpenters, masons, tailors, bakers, butchers, cordwainers, weavers, fullers, and bonnet-makers. The lord-provost is colonel of the town-guard, a military institution, to be found in no part of his majesty's dominions but in Edinburgh; they serve for the city-watch, and patrole the streets, are useful in suppressing small commotions, and attend the execution of sentences upon delinquents. They are divided into three companies, and wear an uniform; they are immediately commanded by three officers, under the name of captains. Besides the guard, Edinburgh raises 16 companies of trained bands, which serve as militia. The revenues of the city consist chiefly of that tax which is now common in most of the bodies corporate in Scotland, of two Scotch pennies, amounting in the whole to two-thirds of a farthing, laid on every Scotch pint of ale (containing two English quarts) consumed within the precincts of the city. This is a most judicious impost, as it renders the poorest people insensible of the burden. Its product, however, has been sufficient to defray the expence of supplying the city with excellent water, brought in leaden pipes from the distance of four miles; of erecting reservoirs, enlarging the harbour of Leith, and completing other public works, of great expence and utility.

Leith, though near two miles distant, may be properly called the harbour of Edinburgh, being under the same jurisdiction. It contains nothing remarkable but the remains of two citadels (if they are not the same), which were fortified and bravely defended by the French, under Mary of Guise, against the English, and afterwards repaired by Cromwell.

The neighbourhood of Edinburgh is adorned with noble seats, which are daily increasing; some of them yield to few in England; but they are too numerous to be particularised here. We cannot, however, avoid mentioning the marquis of Abercorn's a short way from the city; the duke of Buccleugh's house, at Dalkeith; that of the marquis of Lothian, at Newbottle; and Hopetoun-house, so called from the earl its owner. About four miles from Edinburgh is Roslin, noted for a stately Gothic chapel, esteemed one of the most curious pieces of workmanship in Europe; founded in the year 1440, by William St. Clair, prince of Orkney and of Oldenberg.

Glasgow, in the shire of Lanerk, situated on a gentle declivity, sloping towards the river Clyde, 44 miles west of Edinburgh, is, for population, commerce, and riches, the

second city in Scotland, and, considering its size, the first in Great Britain, and perhaps in Europe, as to elegance, regularity, and the beautiful materials of its buildings. The streets cross each other at right angles, and are broad, straight, and well paved, and consequently clean. The houses make a grand appearance, and are generally four or five stories high, and many of them, towards the centre of the city, are supported by arcades, which form piazzas, and give the whole an air of magnificence. Some of the modern built churches are in the finest stile of architecture; and the cathedral is a stupendous Gothic building, hardly to be parallelled in that kind of architecture. It contains three churches, one of which stands above another, and is furnished with a very fine spire, springing from a tower, the whole being reckoned a masterly and matchless fabric. It was dedicated to St. Mungo, or Kentigern, who was bishop of Glasgow in the sixth century. The cathedral is upwards of 600 years old, and was preserved from the fury of the rigid reformers by the resolution of the citizens. The town-house is a lofty building, and has very noble apartments for the magistrates. The university is esteemed the most spacious and best built of any in Scotland, and is at present in a thriving state.

In this city are several well-endowed hospitals; and it is particularly well supplied with large and convenient inns, proper for the accommodation of strangers of any rank. They have lately built a handsome bridge over the river Clyde; but our bounds do not allow us to particularise that, and the other public-spirited undertakings of this city, carrying on by the inhabitants, who do honour to the benefits arising from their vast commerce, both foreign and internal, which they carry on with amazing success. In Glasgow are seven churches, and eight or ten meeting-houses, for sectaries of various denominations. The number of its inhabitants has been estimated at 60,000.

Aberdeen bids fair to be the third town in Scotland, for improvement and population. It is the capital of a shire, to which it gives its name, and contains two towns, New and Old Aberdeen. The former is the shire town, and evidently built for the purpose of commerce. It is a well-built city, and has a good quay, or tide-harbour; in it are three churches, and several episcopal meeting-houses, a considerable degree of foreign commerce and much shipping, a well-frequented university, and about 20,000 inhabitants.

Old Aberdeen, near a mile distant, though almost joined to the new, by means of a long village, has no dependance on the other; it is a moderately large market town, but has no haven. In each of these two places there is a well-endowed college, both together being termed the university of Aberdeen, although quite independent of each other.

Perth, the capital of Perthshire, lying on the river Tay, trades to Norway and the Baltic; is finely situated, has an improving linen manufactory, and lies in the neighbourhood of one of the most fertile spots in Great Britain, called the Carse of Gowry. This town is supposed to have increased one-third since the year 1745; and contains about 11,000 inhabitants. Dundee, by the general computation, contains about 10,000

inhabitants; it lies near the mouth of the river Tay; it is a town of considerable trade, exporting much linen, grain, herrings, and poultry, to sundry foreign parts; and has three churches. Montrose, Aberbrothick, and Brechim, lie in the same county of Angus: the first has a great and flourishing foreign trade, and the manufactures of the other two are in an improving state.

The antient Scots valued themselves upon trusting to their own valour, and not to fortifications, for the defence of their country. This was a maxim more heroical perhaps than prudent, as they have often experienced; and, indeed, at this day, their forts would make but a sorry figure, if regularly attacked. The castles of Edinburgh, Stirling, and Dumbarton, formerly thought places of great strength, could not hold out 48 hours, if besieged by 6000 regular troops, with proper artillery. Fort William, which lies in the West Highlands, is sufficient to bridle the inhabitants of that neighbourhood; as are fort George and fort Augustus, in the north and north-west: but none of them can be considered as defences against a foreign enemy.

We shall not pretend to enter upon a description of the noble edifices that, within the course of this and the last century, have been erected for private persons in Scotland, because they are so numerous, that, to particularise them, exceeds the bounds of our plan. It is sufficient to say, that many of them are equal to some of the most superb buildings in England and foreign countries: and the reader's surprise at this will cease, when he is informed that the genius of no people in the world is more devoted to architecture than that of the nobility and gentry of Scotland; and that there is no country in Europe, on account of the cheapness of materials, where it can be gratified at so moderate expence. This may likewise account for the stupendous Gothic cathedrals, and other religious edifices, which antiently abounded in Scotland; but at the time of the reformation, they were mostly demolished, by a furious and tumultuous mob, who, in these practices, received too much countenance from the reforming clergy, exasperated at the long and sore sufferings they had endured from the popish party.

Dublin, the capital of Ireland, is, in magnitude and the number of inhabitants, the second city in the British dominions; much about the size of Stockholm, Copenhagen, Berlin, and Marseilles, and is supposed to contain about 156,000 inhabitants. It is situated 270 miles N. W. of London, and near 60 miles W. from Holyhead, in North Wales, the usual station of the passage vessels between Great Britain and Ireland. Dublin stands about seven miles from the sea, at the bottom of a large and spacious bay, to which it gives name, upon the river Liffey, which divides it almost into two equal parts, and is banked in, through the whole length of the city, on both sides, which form spacious and noble quays, where vessels below the first bridge load and unload before the merchants' doors and warehouses. A stranger, upon entering the bay of Dublin, which is about seven miles broad, and in stormy weather extremely dangerous, is agreeably surprised with the beautiful prospect on each side, and the distant view of Wicklow mountains; but Dublin, from its low situation, makes no great appearance. The increase of Dublin, within these last 20 years, is incredible; and it is generally supposed that 7000 houses have been added to the city and suburbs since the reign of queen Anne. The number of houses in the year 1777, was 17,151, and are now estimated at

not less than 22, 000. This city, in its appearance, bears a near resemblance to London. The houses are of brick; the old streets are narrow and mean, but the new streets are as elegant as those of the metropolis of Great Britain. Sackville-street, which is sometimes called the Mall, is particularly noble. The houses are elegant, lofty, and uniformly built, and a gravel walk runs through the whole, at an equal distance from the sides.

The river Liffey, though navigable for sea-vessels, as far as the custom-house, or centre of the city, is but small, when compared with the Thames at London. Over it are two handsome bridges, lately built, of stone, in imitation of that at Westminster, and there are three others, that have little to recommend them. Formerly the centre of Dublin, towards the custom-house, was crowded and inconvenient for commercial purposes; but of late a new street has been opened, leading from Essex-bridge to the castle, where the lord-lieutenant resides. A new exchange has been lately erected, an elegant structure of white stone, richly embellished with semi-columns of the Corinthian order, a cupola, and other ornaments.

The barracks are pleasantly situated on an eminence near the river. They consist of four large courts, in which are generally quartered four batallions of foot, and one regiment of horse; from hence the castle and city guards are relieved daily. They are said to be the largest and completest buildings of the kind in Europe, being capable of containing 3000 foot and 1000 horse.

The linen-hall was erected at the public expence, and opened in the year 1728, for the reception of such linen cloths as were brought to Dublin for sale, for which there are convenient apartments. It is entirely under the direction of the trustees for the encouragement of the linen manufactory of Ireland, who are composed of the lord chancellor, the primate, the archbishop of Dublin, and the principal part of the nobility and gentry. This national institution is productive of great advantage, by preventing many frauds, which otherwise would be committed in a capital branch of trade, by which many thousands are employed, and the kingdom greatly enriched.

Stephen's Green is a most extensive square, round which is a gravel-walk of near a mile. Here genteel company walk in the evenings, and on Sundays after two o'clock, and in fine weather make a very gay appearance. Many of the houses round the green are very stately; but a want of uniformity is observable throught the whole. Ample amends will be made for this defect, by another spacious square near Stephen's Green, now laid out and partly built. The houses being lofty, uniform, and carried on with stone, as far as the first floor, will give the whole an air of magnificence, not exceeded by any thing of the kind in Britain, if we except Bath. The front of Trinity college, extending above 300 feet, is built of Portland stone, in the finest taste.

The parliament house was begun in 1729, and finished in 1739, at the expence of 40,000*l*. This superb pile was in general of the Ionic order, and was justly accounted one of the foremost architectural beauties. The portico in particular was, perhaps, without parallel: the internal parts also had many beauties, and the manner in which this building was lighted has been much admired. This superb building, on the 27th of February, 1792, was observed to be in flames, about five o'clock in the afternoon,

when the house of lords, as well as the commons, was sitting, and in full debate. When the alarm was given, one of the members made his way to the roof, and looking down into the house from one of the ventilators, confirmed the apprehensions of those within, by saying that the dome was surrounded by fire, and would tumble into the house in five minutes. The volume of fire, by which the dome was surrounded, soon made apertures on all sides, by melting the copper from the wood-work, and thus exhibiting the cavity of the dome filled with flames, like a large furnace, which, at about half past six, tumbled into the house with one great crash. The valuable library and all the papers of importance were saved. It has since been rebuilt, and restored to its former elegance and beauty.

But one of the greatest and most laudable undertakings that this age can boast of, is the building of a stone wall, about the breadth of a moderate street, and of a proportionable height, and three miles in length, to confine the channel of the bay, and to shelter vessels in stormy weather.

The civil government of Dublin is by a lord-mayor, &c. the same as in London. Every third year, the lord-mayor and 24 companies, by virtue of an old charter, are obliged to perambulate the city, and its liberties, which they call riding the Franchises. Upon this occasion the citizens vie with each other in show and ostentation, which is sometimes productive of disagreeable consequences to many of their families. In Dublin there are two large theatres, that are generally well filled, and which serve as a kind of nursery to those in London. In this city are 18 parish churches, eight chapels, three churches for French, and one for Dutch protestants, seven presbyterian meeting-houses, two for methodists, two for quakers, and 16 Roman catholic chapels. A royal hospital, like that at Chelsea, for invalids; a lying-in hospital, with gardens, built and laid out in the finest taste; an hospital for lunatics, founded by the famous Dean Swift, who himself died insane; and sundry other hospitals, for patients of every description. Some of the churches have been lately rebuilt, and others are rebuilding, in a more elegant manner. And, indeed, whatever way a stranger turns himself in this city, he will perceive a spirit of elegance and magnificence; and if he extend his view over the whole kingdom, he will be convinced that works of ornament and public utility are no where more encouraged than in Ireland, chiefly through the munificence of parliament.

It has, however, been matter of surprise, that, with all this spirit of national improvement, few or no good inns are to be met with in Ireland. In the capital, which may be classed among the second order of cities in Europe, there is not one inn which deserves that name. This may in some measure be accounted for, by the long and sometimes dangerous passage from Chester and Holyhead to Ireland, which prevents the gentry of England with their families, from visiting that island: but as it is now proposed to make turnpike roads to Portpatrick in Scotland, from whence the passage is short and safe, the roads of Ireland may, by this means, become more frequented, especially when the rural beauties of that kingdom are more generally known. For though in England, France, and Italy, a traveller meets with views the most luxuriant and rich, he is sometimes cloyed with a sameness that runs through the whole; but in North Britain and Ireland, the rugged mountains, whose tops look down upon the clouds, the extensive

lakes, enriched with bushy islands, the cavities, glens, and cataracts, have a wonderful effect upon the imagination of every admirer of nature, however rough and unadorned with artificial beauties.

Cork is deservedly reckoned the second city in Ireland, in magnitude, riches, and commerce. It lies 129 miles S. W. of Dublin, and contains above 8500 houses. Its haven is deep, and well sheltered from all winds; but small vessels only can come up to the city, which stands about seven miles up the river Lee. This is the chief port of merchants in the kingdom; and there is, perhaps, more beef, tallow, and butter, shipped off here, than in all the other ports of Ireland put together. Hence there is a great resort of ships to this port, particularly of those bound from Great Britain to Jamaica, Barbadoes, and all the Caribbee islands, which put in here to victual and complete their lading. It appears, that in the reign of Edward IV. there were 11 churches in Cork, though there are now only seven, and yet it has ever since that time been esteemed a thriving city; but it must be observed, that, besides the churches, there are at this time six mass-houses, two dissenting meeting-houses, another for quakers, and a chapel for French protestants. Kinsale is a populous and strong town, with an excellent harbour, and considerable commerce and shipping; and it is, moreover, occasionally a station for the royal navy; for which end this port is furnished with proper naval officers and store-keepers. Waterford is reckoned next to Cork for riches and shipping, and contains 2561 houses. It is commanded by Duncannon fort; and on the west side of the town is a citadel. Limerick, is a handsome, populous, commercial, strong city; it lies on both sides the Shannon, and contains 5257 houses.

Belfast is a large seaport and trading town, at the mouth of the Lagen Water, where it falls into Carrickfergus bay. Downpatrick has a flourishing linen manufacture. Carrickfergus, or Knockfergus, by some deemed the capital town of the province, has a good harbour and castle, but little commerce. Derry, or Londonderry, as it is most usually called, stands on Lough-Foyl, is a strong little city, having linen manufactures, with some shipping. All this extreme north part of Ireland is situated so near to Scotland, that they are in sight of each other's coasts. Donegall, the county town of the same name, othewise called the county of Tyrconnel, is a place of some trade; as is likewise Enniskilling. All which last-mentioned places, and many more, though less considerable, are chiefly, and industriously employed in the manufacturing of linen and linen thread, to the benefit of the whole kingdom, which, by its vast annual exportations of linen into England, is enabled to pay for the great annual importations from England into Ireland; and likewise to render the money constantly drawn from Ireland into England, by her absentees, less grievous to her.

Though Ireland contains no strong places, according to the modern improvements in fortification, yet it has several forts and garrisons, that serve as comfortable sinecures to military officers. The chief are Londonderry, and Culmore fort, Cork, Limerick, Kinsale, Duncannon, Ross-Castle, Dublin, Charlemont, Galway, Carrickfergus, Maryborough, and Athlone. Each of these forts is furnished with deputy-governors, under various denominations, who have pecuniary provisions from the government.

It cannot be pretended, that Ireland is as yet furnished with any public edifices, to

compare with those to be found in countries where sovereigns and their courts reside; but it has some elegant public buildings, which do honour to the taste and public spirit of the inhabitants. The castle, Essex-bridge, and several edifices about Dublin, already mentioned, are magnificent and elegant pieces of architecture, and many noble Gothic churches, and other buildings, are to be seen in Ireland.

The Irish nobility and gentry of fortune now vie with those of England in the magnificent structure of their houses, and the elegance of their ornaments. In speaking of the public buildings of this kingdom, we must not forget the numerous barracks where the soldiers are lodged, equally to the ease and conveniency of the inhabitants.

But having exhausted so large a proportion of our bounds in describing our native empire, it is necessary that we descend into no farther particulars, but take our departure for the continent of Europe.

VIEW OF THE WORLD.

BOOK III.

Northern Europe.

CHAPTER I.

Geographical description of the North of Europe——*General description of the European continent—Its division into four principal parts, the Northern, Western, Eastern, and Southern—History of the discovery of the north of Europe—By what means it became known to the rest of the world—Its grand divisions, East Greenland, Iceland, Tornoe islands, Lapland, Norway, Sweden, Denmark, Germany, Prussia, Bohemia, Hungary, and Danubian provinces.*

WE have commenced our geographical journey with an examination of our native country, because it is that part of the terraqueous globe with which we are more especially concerned, and because we judged it necessary that the reader, by being made acquainted with the natural and political advantages enjoyed at home, might be furnished with the better standard to enable him to ascertain the condition of those nations by which we are surrounded. From the British Isles we pass over to the northern part of the European continent, because it is the birth-place of our ancestors, as well as of the hardy warriors who erected so many independent states on the ruins of the enervated empire of Rome. Whoever has not diligently studied the customs and constitution of the northern nations, can never thoroughly understand the history of France, of Spain, of Portugal, and of Italy.

Kingdoms.	Length.	Breadth.	Chief city.	Dist. and bearing from London.	Difference of time from London. H.	M.	Religion.
Norway	1000	300	Bergen	540 N.	0	24 bef.	Protestant
Denmark	240	180	Copenhagen	500 N. E.	0	50 bef.	
Sweden	800	500	Stockholm	780 N. E.	1	10 bef.	
Russia	1500	1100	Petersburgh	1140 N. E.	2	4 bef.	Greek ch.
Poland	700	680	Warsaw	769 E.	1	24 bef.	Catholic
Prussian dominions	609	350	Berlin	540 E.	0	49 bef.	Protestant
Germany	600	500	Vienna	600 E.	1	5 bef.	Cath. & Pro.

Kingdoms.	Length.	Breadth.	Chief city.	Dist. and bearing from London.	Difference of time from London. H.	M.	Religion.
Bohemia	300	250	Prague	600 E.	1	4 bef.	Catholic
Holland	150	100	Amsterdam	180 E.	0	18 bef.	Protestant
Flanders	200	200	Brussels	180 S. E.	0	16 bef.	Catholic
France	600	500	Paris	200 S. E.	0	9 bef.	———
Spain	700	500	Madrid	800 S.	1	17 aft.	———
Portugal	300	100	Lisbon	850 S. W.	0	38 aft.	———
Switzerland	260	100	Berne	400 S. E.	0	28 bef.	Cath. & Pro.

Italy is divided into many small states. Piedmont, Montserrat, Savoy, Milan, Parma, Madeira, Mantua, Genoa, Tuscany, Lucca, Venice, &c.

Chief cities. Turin, Casal, Milan, Parma, Modena, Mantua, Venice, Genoa, Florence, &c.

Popedom	240	120	Rome	820 S. E.	0	52 bef.	Catholic
Naples	280	120	Naples	870 S. E.	1	0 bef.	
Hungary	300	200	Buda	780 S. E.	1	17 bef.	
Turkey	800	700	Constantinople	1320 S. E.	1	58 bef.	Mahometan

In the prosecution of our present design, we shall divide Europe into four parts, according to the four cardinal points, deviating, however, in some small degree, from the strictness of this plan, when we can, by that means, avail ourselves of any important political relation.

Among the northern parts of Europe we number all those countries which are situated between the Rhine, the Alps, and the frontiers of Turkey, Poland, and Russia. This division comprehends the dominions of Denmark, Sweden, the Germanic body, the emperor, and the king of Prussia. All of these states are united by their relation to the empire; their language is generally derived from the Gothic or Teutonic, and in most of them the protestant religion prevails.

The western Europe comprehends all that is placed between the Rhine, the Alps, the Mediterranean, and the Atlantic; namely, Holland, Flanders, France, Switzerland, Italy, Spain, and Portugal. All these countries may be considered as subject either to the empire or the influence of France; most of their languages are derived from the Latin, and in most the catholic religion is predominant. The eastern countries, Poland and Russia, are subject the Czar, whose empire extends to the utmost confines of the East, and who is head and protector of the Greek church. Their languages are of Sclavonian origin. Lastly, to the south of Europe we refer Turkey in Europe, which is abundantly distinguished by religion, language, government, and manners, from the Christian nations, and forms part of an extensive and barbaric empire, which comprehends considerable regions in Asia and Africa.

How long these countries continued unknown to the rest of the world, it is not easy



NATURAL HISTORY OF THE POLAR REGIONS.

precisely to determine, but it appears from Homer, and still more clearly from Herodotus, that amber was known to the Greeks; from which it is inferred, that there was a trade from Phœnicia to Prussia. A voyage to this country appears to have been performed by Pitheas of Marseilles, about 70 years after the death of Herodotus. They got an acquaintance with some of the inhabitants of these countries by their irons; with the Cimbri, Marcomanni, &c. by the purchase of German slaves, and by their conquests in higher Germany and in Hungary.

The Esthonians, Finlanders, and Goths, were known to them only by name; and they considered Norway, Sconen, and Dunnoe, as islands near the Icy sea.

The Arabian geographers were not much better informed; they seem to speak of Sweden, Finland, &c. without any exact information as to their situation, and distinguishing circumstances. Alfred the Great was well acquainted with Norway, Sweden, Denmark, Germany, Bohemia, and Prussia; having at his court many intelligent Danes, and having caused a voyage of dicovery to be performed as far as Archangel. Iceland was discovered by accident, in 860; and Greenland by a similar circumstance, in 983.

Thus were the northern regions discovered, one after another, and experienced, in their turn, the benefits of civilization. But of this we shall speak more largely, in the course of the next and succeeding chapters.

The most northern part of Europe is East Greenland, with which we shall therefore begin our survey.

EAST GREENLAND.

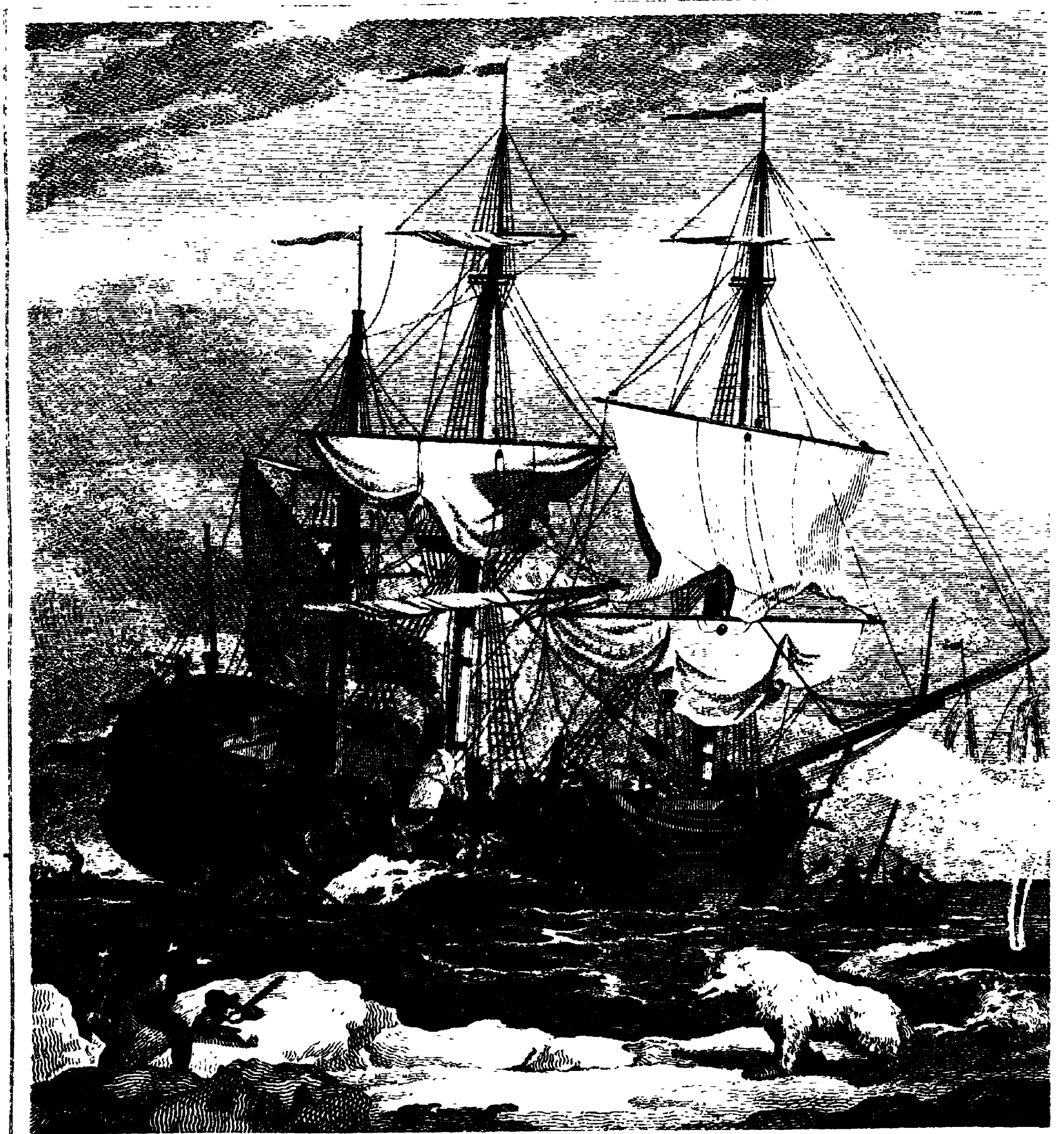
East Greenland was, for a long time, considered as a part of the continent of West Greenland; but is now discovered to be an assemblage of islands, lying between 76° 47′ and 80° 30′ of north latitude, and between 9° and 20° of east longitude. It was discovered by sir Hugh Willoughby, in the year 1553, who called it Greenland; supposing it to be a part of the western continent. In 1595 it was again visited, by William Barentz and John Cornelius, two Dutchmen, who pretended to be the original discoverers, and called the country Spitzbergen, or Sharp Mountains, from the many sharp-pointed and rocky mountains with which it abounds. They alledged, that the coast discovered by sir Hugh Willoughby was some other country; which, accordingly, the Hollanders delineated on their maps and charts, by the name of Willoughby Land; whereas, in fact, no such land ever existed: and, long before the voyage of these Dutchmen, Stephen Barrows, an English ship-master, had coasted along a desolate country, from north latitude 78° to 80° 11′, which was undoubtedly Spitzbergen. The sea, in the neighbourhood of the islands of Spitzbergen, abounds very much with whales, and is the common resort of the whale fishing ships from different countries, and the country itself is frequently visited by these ships; but till the late voyage of the Hon. Capt. Phipps (lord Mulgrave), by order of his majesty, the situation of it was erroneously laid down. It was imagined that the land stretched to the northward as far as 82° of north latitude;

but captain Phipps found the most northerly point of land, called Seven Islands, not to exceed 80° 30′ of latitude. Towards the east, he saw other lands, lying at a distance; so that Spitzbergen plainly appeared to be surrounded by water on that side, and not joined to the continent of Asia, as former navigators had supposed. The north and west coasts also he explored, but was prevented by the ice from sailing so far to the northward as he wished. The coast appeared neither habitable nor accessible. It is formed of high, barren, black rocks, without the least marks of vegetation; in many places bare and pointed; in others covered with snow, appearing even above the clouds. The valleys between the high cliffs were filled with snow and ice. "This prospect," says captain Phipps, "would have suggested the idea of perpetual winter, had not the mildness of the weather, the smooth water, bright sun-shine, and constant day-light, given a cheerfulness and novelty to the whole of this romantic scene." The current ran along this coast half a knot an hour north. The height of one mountain seen here was found, by geometrical mensuration, to be at one time 1503½ feet, at another 1503¾ feet. By a barometer, constructed after De Luc's method, the height was found to be 1588½ feet. On this occasion, captain Phipps has the following remarks. "I cannot account for the great difference between the geometrical measure and the barometrical, according to M. de Luc's calculation, which amounts to 84$\frac{1}{7}$ feet. I have no reason to doubt the accuracy of Dr. Irving's observations, which were made with great care. As to the geometrical measure, the agreement of so many triangles, each of which must have discovered even the smallest error, is the most satisfactory proof of its correctness. Since my return, I have tried both the theodolite and barometer, to discover whether there was any fault in either; and find them, upon trial, as I had always done before, very accurate."

There is good anchorage in Schmeerenburgh harbour, lying in north latitude 74° 44′, east longitude 9° 50′ 45″, in 13 fathom, sandy bottom, not far from the shore, and well sheltered from all winds. Close to this harbour is an island, called Amsterdam Island, where the Dutch used formerly to boil their whale-oil; and the remains of some conveniency, erected by them for that purpose, are still visible. The Dutch ships still resort to this place for the latter season of the whale-fishery.

The stone about this place is chiefly a kind of marble, which dissolves easily in the marine acid. There were no appearances of minerals of any kind, nor any signs of antient or modern volcanoes. No insects, or any species of reptiles, were seen, not even the common earth-worm. There were no springs or rivers; but great plenty of water was produced from the snow, which melted on the mountains.

The most remarkable views, which these dreary regions present, are those called icebergs. They are large bodies of ice, filling the valleys between the high mountains. Their face toward the sea is nearly perpendicular, and of a very lively light green colour. One was about 300 feet high, with a cascade of water issuing from it. The black mountains on each side, the white snow, and greenish coloured ice, composed a very beautiful and romantic picture. Large pieces frequently broke off from the icebergs, and fell with great noise into the water. One piece was observed to have floated out into the bay, and grounded in 24 fathoms; it was 50 feet high above the sur-



W. M [illegible] del. *[illegible] sculp.*

GREENLAND WHALE FISHERY

Published as the [illegible]

face of the water, and of the same beautiful colour with the iceberg from which it had separated.

These islands are totally uninhabited, though it doth not appear but that human creatures could subsist on them, notwithstanding their vicinity to the pole. Eight English sailors, who were accidentally left here by a whale fishing ship, survived the winter, and were brought home next season. The Dutch then attempted to settle a colony on Amsterdam island, above mentioned; but all the people perished, not through the severity of the climate, but of the scurvy, owing to the want of those remedies which are now so happily discovered, and which are found to be so effectual in preventing and curing that dreadful disease. The late account also of six Russian sailors, who staid four years in this inhospitable country, affords a decisive proof, that a colony might be settled on East Greenland, provided the doing so could answer any good purpose.

As the whale fishery is one of those objects which give the greatest importance to northern discoveries, we conceive that an account of it may here be with propriety introduced.

In a commercial view, the whale tribe is of great importance to mankind, supplying us with those two valuable articles, oil and whalebone, and likewise with spermaceti. They are chiefly taken in the northern seas.

The English send out with every ship six or seven boats; each of these has one harpooner, one man at the rudder, one manager of the line, and four seamen to row it. In each boat there are also two or three harpoons, several lances, and six lines, each 120 fathoms long, fastened together. As soon as the whale is struck with the harpoon, it darts down into the deep, carrying the instrument off in his body; and so extremely rapid is its motion, that if the line was to entangle, it would either snap like a thread, or overset the boat. One man, therefore, is stationed to attend only the line, that it may go regularly out, and another is now employed in continually wetting the place it runs against, that the wood may not take fire from the friction. It is wonderful that so large an animal should be able, with such astonishing velocity, to cut through the water, for his flight is as rapid as that of an eagle. When the whale returns to breathe, the harpooner inflicts a fresh wound, till at length, fainting from loss of blood, the men venture the boat quite up to him, and a long steeled lance is thrust into his breast, and through the intestines, which soon puts an end to his existence. When the carcase begins to float, holes are cut in the fins and tail; and ropes being fastened into these, he is towed to the ship, where he is fastened along the larboard side, floating with his back in the water.

The operation next to be performed is that of taking out the blubber and whalebone. Several men get upon the animal, with iron calkers, or spurs, to prevent their slipping, and separate the tail, which is hoisted on deck, and they cut square pieces of blubber, weighing two or three thousand pounds each, which by means of the capstan, are also hoisted up. These are here cut into smaller pieces, which are thrown into the hold, and left for three or four days to drain. When all the blubber is cut from the belly of the fish, it is turned on one side, by means of a

piece of blubber left in the middle, called the cant, or turning piece. They then cut out this side in large pieces as before; and also the whalebone, which are preserved entire, and hoisted on deck, where the blades are cut and separated, and left till the men have time to scrape and clean them. The whale is next turned with its back upwards, and the blubber cut out from the back and crown bone: they conclude the whole by cutting the blubber from the other side. But previously to letting the remainder of the body float away, they cut out two large upper jaw-bones, which are hoisted on deck, cleansed, and fastened to the shrouds, and tubs are placed under them, to receive the oil which they discharge This oil belongs to the captain. In three or four days they hoist the pieces of blubber out of the hold, chop, and put them, by small pieces, through the bung-hole into the casks.

A whale, the longest blade of whose mouth measures nine or ten feet, will yield about 30 butts of blubber; but some of the largest will yield upwards of 70. One of the latter is generally worth about 1000*l.* sterling; and a full ship of 300 tons burthen, will produce more than 5000*l.* from one voyage.

Premiums on every whale that is taken, are given to all engaged, from the captain to the men who row the boats, which render them active in the service of their employers. To give our readers some idea of the produce of the whale fishery, we shall make choice of the fishery of the year 1697, as perhaps the most fortunate that ever was known. In this year there were 189 vessels of different nations, of which 121 were Dutch, 47 from Hamburgh, two Swedish, four Danish, twelve from Bremen, two from Embden, and one from Lubec; which caught in all 1968 fish.

The following was the number of puncheons of blubber produced.

By the Dutch captures,	41,344
Hamburgers,	16,414
Swedes,	540
Danes,	1,710
Bremeners,	3,790
Embdeners,	68
Total,	63,866

Estimating the whalebone at about 2,000 weight for every whale, there must have been in the whole not far short of 4,000,000 weight.

Mr. Anderson, in his Natural History of Iceland and Greenland, observes, from an account of the Dutch whale fishery, for 46 years, ending in 1721, that in this time they had employed 5886 ships, and caught 32,907 whales; which, valued one with another at 500*l.* each, give an amount of the whole value of above 16,000,000*l.* sterling, gained out of the sea, mostly by the labour of the people, deducting the expence of the wear and tear of shipping, the casks, and the provisions.

The whale fishery begins in May, and continues through the months of June and July; but whether the ships have good or bad success, they must come away, and get

clear of the ice by the end of August, so that in the month of September, at farthest, they may be expected home; but the more fortunate ships often return in June or July.

ICELAND.

Iceland is a large island, lying in the northern part of the Atlantic ocean, between 63° and 68° of north latitude, and between 10° and 26° of west longitude, its greatest length being about 700 miles, and its breadth 300.

This country, lying partly within the frigid zone, and being liable to be surrounded with vast quantities of ice, which come from the polar seas, is, on account of the coldness of its climate, very inhospitable; but much more so for other reasons. It is exceedingly subject to earthquakes; and so full of volcanoes, that the little part of it which appears fit for the habitation of man, seems almost totally laid waste by them.

The best account that hath yet appeared of the island of Iceland is in a late publication, intitled, "Letters on Iceland, &c. written by Uno Von Troil, D. D. first chaplain to his Swedish majesty." This gentleman sailed from London the 12th of July, 1772, in company with Mr. Banks, Dr. Solander, and Dr. James Lind, of Edinburgh, in a ship for which 100*l.* sterling was paid every month. After visiting the western isles of Scotland, they arrived on the 28th of August, at Iceland, where they cast anchor at Bessestedr, or Bessastadr, lying in about 64° 6′ north latitude, in the western part of the island. The country had to them the most dismal appearance that can be conceived. "Imagine to yourself," says Dr. Troil, "a country, which, from one end to the other, presents to your view only barren mountains, whose summits are covered with eternal snow, and between them fields divided by vitrified cliffs, whose high and sharp points seem to vie with each other to deprive you of the sight of a little grass, which scantily springs up among them. These same dreary rocks likewise conceal the few scattered habitations of the natives, and no where a single tree appears, which might afford shelter to friendship and innocence. The prospect before us, though not pleasing, was uncommon and surprising. Whatever presented itself to our view, bore the marks of devastation; and our eyes, accustomed to behold the pleasing coasts of England, now saw nothing but the vestiges of the operation of a fire, Heaven knows how antient!"

The climate of Iceland, however, is not unwholesome, or naturally subject to excessive colds, notwithstanding its northwardly situation. There have been instances, indeed, of Fahrenheit's thermometer sinking to 24° below freezing point in winter, and rising to 104° in summer. Since the year 1749, observations have been made on the weather; and the result of these observations hath been unfavourable, as the coldness of the climate is thought to be on the increase, and of consequence the country is in danger of becoming unfit for the habitation of the human race. Wood, which formerly grew in great quantities all over the island, cannot now be raised. Even the hardy firs of Norway cannot be reared in this island. They seemed indeed to thrive, till they were

about two feet high; but then their tops withered, and they ceased to grow. This is owing chiefly to the storms and hurricanes, which frequently happen in the months of May and June, and which are very unfavourable to vegetation of every kind. In 1772, governor Thodal sowed a little barley, which grew very briskly; but a short time before it was to be reaped, a violent storm so effectually destroyed it, that only a few grains were found scattered about. Besides these violent winds, this island lies under another disadvantage, owing to the floating ice already mentioned, with which the coasts are often beset. This ice comes on by degrees, always with an easterly wind, and frequently in such quantities, as to fill up all the gulfs on the north-west side of the island, and even covers the sea as far as the eye can reach; it also, sometimes, drives to other shores. It generally comes in January, and goes away in March. Sometimes it only reaches the land in April; and, remaining there for a long time, does an incredible deal of mischief. It consists partly of mountains of ice, said to be sometimes 60 fathoms in height; and partly of field-ice, which is neither so thick nor so much dreaded. Sometimes these enormous masses are grounded in shoal water; and in these cases they remain for many months, nay years, undissolved, chilling the atmosphere for a great way round. When many such bulky and lofty ice-masses are floating together, the wood, which is often found drifting between them, is so much chafed, and pressed with such violence together, that it sometimes takes fire; which circumstance has occasioned fabulous accounts of the ice being in flames.

In 1753 and 1754, this ice occasioned such a violent cold, that horses and sheep dropped down dead by reason of it, as well as for want of food; horses were observed to feed upon dead cattle, and the sheep ate each other's wool. In 1755, towards the end of the month of May, the waters were frozen over in one night to the thickness of an inch and five lines. In 1756, on the 26th of June, snow fell to the depth of a yard, and continued falling through the months of July and August. In the year following, it froze very hard towards the end of May and beginning of June, in the south part of the island, which occasioned a great scarcity of grass. These frosts are generally followed by a famine, many examples of which are to be found in the Icelandic chronicles.

Besides these calamities, a number of bears annually arrive with the ice, which commit great ravages among the sheep. The Icelanders attempt to destroy these intruders as soon as they get sight of them. Sometimes they assemble together, and drive them back to the ice, with which they often float off again. For want of fire-arms, they are obliged to use spears on these occasions. The government also encourages the destruction of these animals, by paying a premium of ten dollars for every bear that is killed, and purchasing the skin of him who killed it.

Notwithstanding this dismal picture, however, taken from Von Troil's letters, some tracts of ground, in high cultivation, are mentioned as being covered by the great eruption of lava in 1783. It is possible threfore, that the above may have been somewhat exaggerated.

Thunder and lightning are seldom heard in Iceland, except in the neighbourhood of volcanoes. Aurora Borealis is very frequent and strong. It most commonly appears

in dry weather; though there are not wanting instances of its being seen before or after rain, or even during the time of it. The lunar halo, which prognosticates bad weather, is likewise very frequent here; as are also parhelions, which appear from one to nine in number at a time. These parhelions are observed chiefly at the approach of the Greenland ice, when an intense degree of frost is produced, and the frozen vapours fill the air. Fire-balls, sometimes round and sometimes oval, are observed, and a kind of ignis fatuus, which attaches itself to men and beasts; and comets are also frequently mentioned in their chronicles. This last circumstance deserves the attention of astronomers

Iceland, besides all the inconveniencies already mentioned, has two very terrible ones, called by the natives skrida and snioflodi. The name of the first imports large pieces of a mountain tumbling down and destroying the lands and houses which lie at the foot of it: this happened in 1554, when a whole farm was ruined, and 13 people buried alive.

The other word signifies the effects of a prodigious quantity of snow, which covers the tops of the mountains, rolling down in immense masses, and doing a great deal of damage: of this there was an instance in 1699, during the night, when two farms were buried, with all their inhabitants and cattle. This last accident Iceland has in common with all very mountainous countries, particularly Switzerland.

"Iceland abounds with hot and boiling springs, some of which spout up into the air to a surprising height. All the jets d'eau which have been contrived with so much art, and at such an enormous expence, cannot by any means be compared with these wonders of nature in Iceland. The water-works at Herenhausen throw up a single column of water, of half a quarter of a yard in circumference, to a height, of about 70 feet; those at the Winterkasten, at Cassel, throw it up, but in a much thinner column, 130 feet; and the jet d'eau at St. Cloud, which is thought the greatest of all the French water-works, casts up a thin column 80 feet into the air; but some springs in Iceland pour forth columns of water, several feet in thickness, to the height of many fathoms; and many affirm of several hundred feet."

"These springs are unequal in their degrees of heat; but we have observed none under 188 degrees of Fahrenheit's thermometer; in some it is 192, 193, 212, and in one small vein of water 213 degrees. From some the water flows gently, and the spring is then called laug, "a bath;" from others it spouts with great noise, and is then called Huer, or kettle. It is very common for some of these spouting springs to close up, and others to appear in their stead. All these hot waters have an incrusting quality; so that we very commonly find the exterior surface, from whence it bursts forth, covered with a kind of rind, which almost resembles chased work, and which we at first took for lime, but which was afterwards found, by Mr. Bergman, to be of a siliceous or flinty nature. In some places the water tastes of sulphur, in others not; but when drank as soon as it is cold, tastes like common boiled water. The inhabitants use it at particular times for dying; and were they to adopt proper regulations, it might be of still greater use."

"Victuals may also be boiled in it, and milk held over its steam becomes sweet;

owing, most probably, to the excessive heat of the water, as the same effect is produced by boiling it a long time over the fire. They have begun to make salt by boiling sea-water over it; which, when it is refined, is very pure and good. The cows which drink this hot water yield a great deal of milk. Egbert Olaffsen relates, that the water does not become turbid when alkali is thrown into it, nor does it change the colour of syrup of violets. Horrebow asserts, that if you fill a bottle at one of the spouting springs, the water will boil over two or three times while the spring throws forth its water; and if corked too soon, the bottle will burst."

"Among the many hot springs to be met with in Iceland, several bear the name of Geyser: the following is a description of the most remarkable of that name, and in the whole island. It is about two days journey from Hecla, near a farm called Haukadal. Here a poet would have an opportunity of painting whatever nature has of beautiful and terrible, united in one picture, by delineating this surprising phenomenon. Represent to yourself a large field, where you see on one side at a great distance, high mountains, covered with ice, whose summits are generally wrapped in clouds, so that their sharp and unequal points become invisible. This loss however, is compensated by a certain wind, which causes the clouds to sink, and cover the mountain itself, when its summit appears, as it were, to rest on the clouds. On the other side, Hecla is seen, with its three points covered with ice, rising above the clouds, and, with the smoke which ascends from it, forming other clouds, at some distance from the real ones; and on another side is a ridge of high rocks, at the foot of which boiling water, from time to time, issues forth; and further on extends a marsh, of about three English miles in circumference, where are 40 or 50 boiling springs, from which a vapour ascends, to a prodigious height."

"In the midst of these is the greatest spring, Geyser, which deserves a more exact and particular account. In travelling to the place, about an English mile and a half from the Geyser, from which the ridge of rocks still divided us, we heard a loud roaring noise, like the rushing of a torrent, precipitating itself from stupendous rocks. We asked our guide what it meant; he answered, it was Geyser roaring; and we soon saw with our naked eyes, what before seemed almost incredible."

"The depth of the opening or pipe, from which the water gushes, cannot well be determined, for sometimes the water sunk down several fathoms, and some seconds passed, before a stone, which was thrown into the aperture, reached the surface of the water. The opening itself was perfectly round, and 19 feet in diameter, and terminated in a bason, 59 feet in diameter. Both the pipe and the bason were covered with a rough stalactic rind, which had been formed by the force of the water: the outermost border of the bason is nine feet and an inch higher than the pipe itself."

"The water here spouted several times a-day, but always by starts, and after certain intervals. The people, who lived in the neighbourhood, told us, that it rose higher in cold and bad weather than at other times; and Egbert Olaffsen and several others affirm, that it has spouted to the height of 60 fathoms. Most probably they guessed only by the eye, and on that account their calculation may be a little extravagant; and indeed it is to be doubted whether the water was ever thrown up so high,



DRESSES of the ICELANDERS, with a VIEW of MOUNT HECLA.

though probably it sometimes mounts higher than when we observed it. The method we took to observe the height was as follows. Every one in company wrote down, at each time that the water spouted, how high it appeared to him to be thrown, and we afterwards chose the medium. The first column marks the spoutings of the waters in the order in which they followed one another: the second the time when these effusions happened: the third, the height to which the water rose; and the last, how long each spouting of water continued.

No.		Time.	Height.	Duration.
1	At 6	42 m.	30 feet	20 seconds.
2		5?	6	20
3	7	16	6	10
4		31	12	15
5		51	60	6
6	8	17	24	30
7	–	29	18	40
8		36	12	40

"The pipe was now for the first time full of water, which ran slowly into the bason.

9	9	25	48	110
10	10	16	24	100

"At 55 minutes past 12, we heard, as it were, three discharges of a gun under-ground, which made it smoke; the water flowed over immediately, but instantly sunk again. At eight minutes after two, the water flowed over the border of the bason. At 15 minutes after three, we again heard several subterraneous noises, though not so strong as before. At 45 minutes after four, the water flowed over very strongly during the space of a minute. In six minutes after, we heard many loud subterraneous discharges, not only near the spring, but also from the neighbouring ridge of rocks, where the water spouted. At 51 minutes after six, the fountain spouted up to the height of 92 feet, and continued to do so for four minutes. After this great effort, it sunk down very low into the pipe, and was entirely quiet during several minutes, but soon began to bubble again; it was not, however, thrown up into the air, but only to the top of the pipe."

"The force of the vapours which throw up these waters is excessive; it not only prevents the stones, which are thrown into the opening, from sinking, but even throws them up to a very great height, together with the water. When the bason was full, we placed ourselves before the sun, in such a manner that we could see our shadows in the water; when every one observed, round the shadow of his own head (though not round that of the heads of others), a circle, of almost the same colours which compose the rainbow, and round this another bright circle. This most probably proceeded from the vapours exhaling from the water."

"Not far from this place, another spring, at the foot of the neighbouring ridge of rocks, spouted water to the height of one or two yards each time. The opening through which this water issued was not so wide as the other; we imagined it possible to stop up the hole entirely, by throwing large stones into it, and even flattered ourselves that our attempts had succeeded; but, to our astonishment, the water gushed forth in a very violent manner. We hastened to the pipe, and found all the stones thrown aside, and the water playing freely through its former channel. In these large springs, the waters were hot, in the highest degree, and tasted a little of sulphur; but in other respects it was pure and clear. In the smaller springs of the neighbourhood the water was tainted; in some it was as muddy as that of a clay-pit; in others as white as milk; and in some few as red as blood."

"Iceland abounds with pillars of basaltes, which the lower sort of people imagine have been piled upon each other by the giants, who made use of supernatural force to effect it. They have generally from three to seven sides; and are from four to six feet in thickness, and from 12 to 16 yards in length, without any horizontal divisions. But sometimes they are only from six inches to one foot in height, and they are then very regular, insomuch that they are sometimes made use of for windows and door-posts. In some places they only peep out here and there among the lava, or more frequently among the tufa; in other places they are quite overthrown, and pieces of broken pillars only make their appearance. Sometimes they extend, without interruption for two or three miles in length. In one mountain they have a singular appearance; on the top the pillars lie horizontally, in the middle they are sloping; the lowest are perfectly perpendicular; and in some parts they are bent into a semicircular figure. The matter of the Iceland basaltes seems to be the same with that of Staffa; though in some it is more porous, and inclines to a grey. Some we observed, which were of a blackish grey, and composed of several joints. Another time we observed a kind of porous glassy stone consequently a lava, which was so indistinctly divided, that we were for some time at a loss to determine whether it was basaltes or not, though at last we all agreed that it was."

Iron ore is found in some parts of the island, and that beautiful copper ore called malachites. Horrebow speaks of native silver. A stratum of sulphur is found near Myvatn, from nine inches to two feet in thickness; partly of a brown colour, and partly of a deep orange. Immediately over the sulphur is a blue earth; above that a vitriolic and aluminous one; and beneath the sulphur reddish bole.

Iceland is noted for the volcanoes with which it abounds, as already mentioned, and which seem to be more furious than any yet discovered in the other parts of the globe. Indeed, from the latest accounts, it would seem that this miserable country were little other than one continued volcano. Mount Hecla has been commonly supposed to be the only burning mountain, or at least the principal one, in the island. (*See Hecla.*) It has indeed been more taken notice of than many others of as great extent, partly from its having had more frequent eruptions than any single one, and partly from its situation, which exposes it to the sight of ships sailing to Greenland and North America. But in a list of eruptions, published in the appendix to Pennant's Arctic Zoology it

appears, that out of 51 remarkable ones, only one third have proceeded from Hecla, the other mountains, it seems, being no less active in the work of destruction than this celebrated one. These eruptions take place in the mountains covered with ice, which the inhabitants call Jokuls. Some of these, as appears from a large map of Iceland, made by order of his Danish majesty, in 1734, have been swallowed up. Probably the great lakes met with in this country may have been occasioned by the sinking of such mountains, as several instances of a similar nature are to be met with in other parts of the world. The great Icelandic lake, called Myvatu, may probably have been one. Its bottom is entirely formed of lava, divided by deep cracks, which shelter, during winter, the great quantity of trouts which inhabit this lake. It is now only 30 feet deep; but was originally much deeper; being nearly filled up in the year 1728, by an eruption of the great mountain Krafle. The fiery stream took to its course towards Myvatu, and ran into it with a horrid noise, which continued till the year 1730.

"The mountains of Iceland," says Mr. Pennant, "are of two kinds, primitive and posterior. The former consist of strata, usually regular, but sometimes confused. They are formed of different sorts of stone, without the least appearance of fire. Some are composed of sand and freestone, petrosilex or chirt, slaty or fissile stone, and various kinds of earth or bole, and steatitæ, different sorts of breccia or conglutinated stone; jaspers of different kinds, Iceland crystal; the common rhomboid spathum, chalcedonies stratified and botryoid; zeolites of the most elegant kinds; crystals, and various other substances, that have no relation to volcanoes. These primitive mountains are those called Jokuls, and are higher than the others. One of them, called Æsian or Rias, is 6000 feet high. It seems to be composed of great and irregular rocks, of a dark grey colour, piled on each other. Another, called Enneberg, is about 3000 feet high; the Snaefield Jokul, 2287 yards; the Snaefieldnas, or promontory of Snaefield, is from 300 to 400 fathoms. Hornstrand, or the coast by the North Cape Nord, is very high, from 300 to 400 fathoms. The rocks of Drango are seven in number, of a pyramidal figure, rising out of the sea, at a small distance from the cliffs, four of which are of a vast height, and have a most magnificent appearance."

"Eastward from the Snaefield begins the Eisberge, soaring to a vast height; many parts of which have felt the effects of fire, and in some of the melted rocks are large cavities. Budda-lekkur, a rock at one end of this mountain, is also volcanic, and has in it a great cavern, hung with stalactitæ. The name of Solvahamar is given to a tremendous range of volcanic rocks, composed entirely of slags, and covered in the season with sea-fowl."

"It would be endless, however, to mention all the places which bear the marks of fire, in various forms, either by having been vitrified, changed into a fiery colour, ragged, and black, or bear the marks of having run for miles in a sloping course towards the sea."

These volcanos, though so dreadful in their effects, seldom begin to throw out fire without giving warning. A subterraneous rumbling noise, heard at a considerable distance, as in other volcanoes, precedes the eruption for several days, with a roaring and cracking in the place from whence the fire is about to burst forth; many fiery meteors

are observed, but generally unattended with any violent concussion of the earth, though sometimes earthquakes, of which several instances are recorded, have accompanied these dreadful conflagrations. The drying up of small lakes, streams, and rivulets is also considered as a sign of an impending eruption; and it is thought to hasten the eruption, when a mountain is so covered with ice, that the holes are stopped up through which the exhalations formerly found a free passage. The immediate sign is the bursting of the mass of ice, with a dreadful noise; flames then issue forth from the earth, and lightning and fire-balls from the smoke; stones, ashes, &c. are thrown out to vast distances. Egbert Olaffsen relates, that in an eruption of Kattle giaa, in 1755, a stone, weighing 290 pounds, was thrown to the distance of 24 English miles. A quantity of white pumice stone is thrown up by the boiling waters; and it is conjectured, with great probability, that the latter proceeds from the sea, as a quantity of salt, sufficient to load several horses, has frequently been found after the mountain has ceased to burn.

To enumerate the ravages of so many dreadful volcanoes, which, from time immemorial, have contributed to render this dreary country still less habitable than it is from the climate, would greatly exceed our limits. It will be sufficient to give an account of that which happened in 1783, and which, from its violence, seems to have been unparalleled in history.

Its first signs were observed on the 1st of June, by a trembling of the earth, in the western part of the province of Shapterfiall. It increased gradually to the 11th, and became at last so great, that the inhabitants quitted their houses, and lay at night in tents on the ground. A continual smoke or steam was perceived rising out of the earth, in the northern and uninhabited parts of the country. Three fire-spouts, as they were called, broke out in different places; one in Ulfarfdal, a little to the east of the river Skapta; the other two were a little to the westward of the river called Ilwerfisfliot. The river Skapta takes its rise in the north-east, and running first westward, it runs to the south, and falls into the sea in a south-east direction. Part of its channel is confined, for about 24 English miles in length, and is in some places 200 fathoms deep, in others 100 or 150; and its breadth in some places 100, 50, or 40 fathoms. Along the whole of this part of its course, the river is very rapid, though there are no considerable cataracts or falls. There are several other such confined channels in the country, but this is the most considerable.

The three fire-spouts, or streams of lava, which had broke out, united in one, after having risen a considerable height into the air, arriving at last at such an amazing altitude, as to be seen at the distance of more than 200 English miles; the whole country, for double that distance, being covered with a smoke or steam not to be described.

On the 8th of June, this fire first became visible. Vast quantities of sand, ashes, and other volcanic matters were ejected, and scattered over the country by the wind, which at that time was very high. The atmosphere was filled with sand, brimstone, and ashes, in such a manner as to occasion continual darkness; and considerable damage was done by the pumice-stones, which fell, red-hot, in great quantities. Along

with these a tenacious substance, like pitch, fell, in vast quantity; sometimes rolled up, like balls, at other times like rings or garlands, which proved no less destructive to vegetation than the other. This shower having continued for three days, the fire became very visible, and at last arrived at the amazing height already mentioned. Sometimes it appeared in a continued stream, at others in flames, seen at the distance of 30 or 40 Danish miles (180 or 240 of ours,) with a continual noise, like thunder, which lasted the whole summer.

The same day that the fire broke out, there fell a vast quantity of rain, which running in streams on the hot ground, tore it up in large quantities, and brought it down upon the lower lands. This rain-water was much impregnated with acid and other salts, so as to be highly corrosive, and occasioned a painful sensation, when it fell on the hands or face. At a greater distance from the fire, the air was excessively cold. Snow lay upon the ground three feet deep in some places; and in others there fell great quantities of hail, which did very much damage to the cattle and every thing without doors.

Thus the [redacted] every kind of vegetation in those places nearest the fire were destroyed, being covered with a thick crust of sulphureous and sooty matter. Such a quantity of vapour was raised by the contest of the two adverse elements, that the sun was darkened, and appeared like blood, the whole face of nature seeming to be changed; and this obscurity seems to have reached as far as the island of Britain; for, during the whole summer of 1783, an obscurity reigned throughout all parts of this island; the atmosphere appearing to be covered with a continual haze, which prevented the sun from appearing with his usual splendour.

The dreadful scene above described lasted in Iceland for several days; the whole country was laid waste, and the inhabitants fled every where to the remotest parts of their miserable country, to seek for safety from the fury of this unparalleled tempest.

On the first breaking out of the fire, the river Skapta was considerably augmented, on the east side of which one of the fire spouts was situated; and a similar overflow of water was observed at the same time in the great river Piorsa, which runs into the sea a little to the eastward of a town called Orrebakka, and into which another river, called Tuna, after having run through a large tract of barren and uncultivated land, empties itself. But on the 11th of June, the waters of Skapta were lessened, and in less than 24 hours totally dried up.

The day following, a prodigious stream of liquid and red-hot lava, which the fire-spout had discharged, ran down the channel of the river. This burning torrent not only filled up the deep channel above mentioned, but, overflowing the banks of it, spread itself over the whole valley, covering all the low grounds in its neighbourhood; and not having any sufficient outlet to empty itself by, it rose to a vast height, so that the whole adjacent country was overflowed, insinuating itself between the hills, and covering some of the lower ones. The hills here are not continued in a long chain or series, but are separated from one another, and detached, and between them run little rivulets or brooks; so that, besides filling up the whole valley, in which the

river Skapta ran, the fiery stream spread itself for a considerable distance on each side, getting vent between the above-mentioned hills, and laying all the neighbouring country under fire.

The spouts still continuing to supply fresh quantities of inflamed matter, the lava took its course up the channel of the river, overflowing all the grounds above, as it had done those below the place whence it issued. The river was dried up before it, until at last it was stopped by the hill whence the Skapta takes its rise. Finding now no proper outlet, it rose to a prodigious height, and overflowed the village of Buland, consuming the houses, church, and every thing that stood in its way, though the high ground, on which this village stood, seemed to ensure it from any danger of this kind.

The fiery lake, still increasing, spread itself out in length and breadth for about 36 English miles; and having converted all this tract of land into a sea of fire, it stretched itself towards the south, and getting vent again by the river Skapta, rushed down its channel with great impetuosity. It was still confined between the narrow banks of that river for about six miles (English); but coming at last into a more open place, it poured forth in prodigious torrents, with amazing velocity and force; spreading itself now towards the south, tearing up the earth, and carrying on its surface flaming woods, and whatsoever it met with. In its course, it laid waste another large district of land. The ground where it came was cracked, and sent forth great quantities of steam, long before the fire reached it; and every thing near the lake was either burnt up or reduced to a fluid state.

In this situation matters remained from the 12th of June to the 13th of August; after which the fiery lake no longer spread itself, but nevertheless continued to burn; and when any part of the surface acquired a crust by cooling, it was quickly broken by the fire from below; and this tumbling down among the melted substance, was rolled and tossed about with prodigious noise and crackling; and in many parts of its surface, small spouts, or at least ebullitions, were formed, which continued for some length of time.

In other directions this dreadful inundation proved no less destructive. Having run through the narrow part of the channel of Skapta, as early as the 12th of June, it stretched out itself towards the south-west, overflowing all the flat country, and its edge being no less than 70 fathoms high, at the time it got out of the channel of the river. Continuing its destructive course, it overflowed a number of villages, running in every direction where it could find a vent. In one place it came to a great cataract of the river Skapta, about 14 fathoms in height, over which it was precipitated with tremendous noise, and thrown in great quantities to a very considerable distance. In another place it stopped up the channel of a large river, filled a great valley, and destroyed two villages, by approaching only within 100 fathoms of them, others were overflowed by inundations of water, proceeding from the rivers which had been stopped in their courses; until at last all the passages on the south, east, and west, being stopped, and the spouts still sending up incredible quantities of fresh lava, it burst out to the north and north-east, spreading over a tract of land 48 miles long and 36 broad. Here it dried up the rivers Tuna

and Axasyrdi; but even this vast effusion being insufficient to exhaust the subterraneous resources of liquid fire, a new branch took its course, for about eight miles, down the channel of the river Hwerfisfliot, when coming again to an open country, it formed what our author calls a small lake of fire, about twelve miles in length and six in breadth. At last, however, this branch also stopped on the 16th of August; the fiery fountain ceased to pour forth new supplies, and this most astonishing eruption came to a period.

The whole extent of ground covered by this dreadful inundation was computed at no less than 90 miles long and 42 in breadth: the depth of the lava being from 16 to 20 fathoms. Twelve rivers were dried up, 20 or 21 villages were destroyed, and 224 people lost their lives. The extent above mentioned, however, is that only on the south, east and west; for that towards the north being over uninhabited land, where nobody cared to venture themselves, was not exactly known. Some hills were covered by this lava, others were melted down by its heat; so that the whole had the appearance of a sea red-hot and melted metal.

After this eruption two new islands were thrown up from the bottom of the sea. One about three miles in circumference, and about a mile in height, made its appearance some time in the month of February, 1784, where there was formerly 100 fathoms water. It was about 100 miles south-west from Iceland, and 48 from a cluster of small islands called Gierfugla. It continued for some time to burn with great violence, sending forth prodigious quantities of pumice stones, sand, &c. like other volcanoes. The other lay to the north-west between Iceland and Greenland. It burnt day and night without intermission for a considerable time; and was also very high, and larger than the former; since that time, however, one or both of these islands have been swallowed up.

All the time of this great eruption, and for a considerable time after, the whole atmosphere was loaded with smoke, steam, and sulphurous vapours. The sun was sometimes wholly invisible; and when it could be seen was of a reddish colour. Most of the fisheries were destroyed: the banks where the fish used to resort being so changed, that the fishermen could not know them again; and the smoke was so thick, that they could not go far out to sea. The rain-water, falling through this smoke and steam, was so impregnated with salt and sulphurous matter, that the hair, and even the skin, of the cattle were destroyed; and the whole grass of the island was so covered with soot and pitchy matter, that what had escaped the destructive effects of the fire, became poisonous; so that the cattle died for want of food, or perished by eating those unwholesome vegetables. Nor were the inhabitants in a much better situation; many of them having lost their lives by the poisonous qualities of the smoke and steam with which the whole atmosphere was filled; particularly old people, and such as had any complaint in the breast and lungs.

Before the fire broke out in Iceland, there is said to have been a very remarkable eruption in the uninhabited parts of Greenland; and that in the northern parts of Norway, opposite to Greenland, the fire was visible for a long time. It was also related that when the wind was in the north, a great quantity of ashes, pumice, and brimstone,

fell upon the north, and west coasts of Iceland, which continued for the whole summer whenever the wind was in that quarter; and the air was always very much impregnated with a thick smoke and sulphurous smell.

During the fall of the sharp rain formerly mentioned, there was observed at Dronheim, and other places in Norway, and likewise at Faw, an uncommon fall of sharp and salt rain, which totally destroyed the leaves of the trees, and every vegetable it fell upon, by scorching them up and causing them to wither. A considerable quantity of ashes, sand, and other volcanic matters fell at Faro, which covered the whole surface of the ground whenever the wind blew from Iceland, though the distance between the two places is not less than 460 miles. Ships that were sailing betwixt Copenhagen and Norway were frequently covered with ashes and sulphurous matter, which stuck to the masts, sails, and decks, besmearing them all over with a black and pitchy substance.

In many parts of Holland, Germany, and other northern countries a sulphurous vapour was observed in the air, accompanied with a thick smoke, and in some places a light grey coloured substance fell upon the earth every night; which by yielding a bluish flame when thrown into the fire, evidently showed its sulphureous nature. On those nights in which this substance fell in any quantity, there was little or no dew observed. These appearances continued, more or less, all the months of July, August, and September.

THE FERRO ISLANDS.

The Ferro Islands are a cluster of small islands lying in the Northern Ocean, between 61° and 63° N. Lat. and between 5° and 8° W. Lon. They belong to Denmark. There are 17 which are habitable; each of which is a lofty mountain rising out of the waves, divided from the others by deep and rapid currents. Some of them are deeply indented with secure harbours; providence seeming to have favoured mankind with the safest retreats in the most boisterous seas. All are very steep, and most of them faced with most tremendous precipices.

The surface of the mountains consists of a shallow soil of remarkable fertility; for barley, the only corn sown here, yields above 20 for one; and the grass affords abundant pasturage for sheep. The exports are salted mutton and tallow; goose-quills, feathers, and eider-down; and, by the industry of the inhabitants, knit woollen waistcoats, caps, and stockings. No trees beyond the size of juniper or stunted willows will grow here; nor are any wild quadrupeds to be met with, except rats and mice, originally escaped from the shipping. Vast quantities of sea-fowl frequent the rocks; and the taking of them furnishes a very perilous employment to the natives.

The sea which surrounds these islands is extremely turbulent. The tides vary greatly on the western and eastern sides. On the first where is received the uninterrupted flood of the ocean from the remote Greenland, the tides rises seven fathoms; on the eastern side it rises only three. Dreadful whirlwinds, called by the Danes oes, agitate the sea

to a strange degree, catch up a vast quantity of water, so as to leave a great temporary chasm in the spot on which it falls, and carries away with it, to an amazing distance, any fishes which may happen to be within the reach of its fury. Thus great shoals of hvae been found in the highest mountains of Ferro. It is equally resistless on land; tearing up trees, stones, and animals, and carrying them to very distant places.

Among the numerous whirlpools of these seas, that of Suderoe, near the island of the same name, is the most noted. It is occasioned by a crater 61 fathoms in depth in the centre, and from 50 to 55 on the sides. The water forms four fierce circumgirations. The point they begin at, is on the side of a large bason, where commences a range of rocks running spirally, and terminating at the verge of the crater. This range is extremely rugged, and covered with water from the depth of 12 to eight fathoms only. It forms four equidistant wreaths, with a channel from 35 to 20 fathoms in depth between each. On the outside, beyond that depth, the sea suddenly sinks to 80 and 90. On the south border of the bason is a lofty rock, called Sumboe Munk, noted for the multitude of birds that frequent it. On one side, the water is only three or [illegible] fathoms deep; on the other 15. The danger at most times, especially in storms, is very great. Ships are irresistibly drawn in; the rudder loses its power; and the waves beat as high as the masts; so that an escape is almost miraculous; yet at the reflux, and in very still weather, the inhabitants will venture in boats for the sake of fishing.

LAPLAND.

We now proceed to the continent, and begin with Lapland, the most northerly country of Europe, extending from the North Cape in 71° 30′ N. Lat. to the White Sea under the arctic circle, is inhabited by the same people, though the country is subject to different powers.

Norwegian Lapland, under the dominion of Denmark, lies between the northern sea, the river Pais, and the river Enarak. Swedish Lapland comprehends all the country from the Baltic to the mountains that separate Norway from Sweden. It is divided into six districts, denominated marck or territory; and these are distinguished by the names of rivers, such as Aungermanland, Elma, Peta, Lula, Torna, and Kiemi. The eastern part subject to the Czar of Muscovy, situated between the lake Enarak and the White Sea, is divided into three distinct perfectures; namely, that of the sea coast towards the north, called Mourmankoi Leporie; the Terskoi Leporie, upon the coast of the White Sea; and the third or inland, known by the name of Bellamoreskoi Leporie. In Swedish Lapland, which is the most considerable of the three, the provinces or marcks are subdivided into smaller districts called biars, consisting each of a certain number of families; among which the land is parcelled out by government, or the perfect of the district appointed by the king of Sweden.

Lapland may be termed a huge congeries of frightful rocks and stupendous mountains; interpersed, however, with many pleasant valleys, watered by an infinite number of

rivulets that run into the rivers and lakes, which discharge themselves into the gulf of Bothnia. The names of the principal lakes in Lapland are, the Great Uma, the Great Windel, the Oreavan, the Stor-avan, the Great Lula; the lakes of Kartom, Kali, Torno, Enara, and Kimi. Some of these extend 60 leagues in length, and contain a great number of islands. Stor-avan is said to contain 365; and Enara contains an archipelago of islands, so large that no Laplander has lived long enough to visit each particular island.

The natives believe this country to be the terrestrial paradise; and indeed nothing could be more enchanting than such vast prospects of mountains, hills, forests, lakes, rivers, &c. if the country was in a moderate climate, though even here in summer, the roses are seen blowing wild on the banks of the lakes and rivers, with all the beautiful glow of colour which appears in those cultivated in our gardens. But all the intervals between the mountains are not ingrossed by these agreeable prospects; great part of the flat country is covered with brown dusky forests of fir and pine-trees; and these are often skirted by wide extended morasses, the stagnating waters of which in summer produce myriads of mischievous insects, that are more intolerable than even the cold of winter.

The cold of Lapland is very intense during the winter, freezing even brandy and the watery part of spirit of wine, if the latter is not highly rectified: all the lakes and rivers are frozen to a prodigious thickness; and the whole face of the country is covered with snow to the depth of four or five feet. While this continues loose, it is impossible to travel; for a man's eyes are not only blinded with it, but if a strong wind should rise he will be buried in the drifts of snow: yet should a partial thaw take place for a few hours, the surface of this snow is formed by the succeeding frost into a hard impenetrable crust, over which the Laplander travels in his sledge with great celerity. While the thaw prevails, the air is surcharged with vapours, and the climate is rainy; but while the north wind blows, the sky is beautifully serene, and the air very clear.

The heat of summer is almost as intolerable in Lapland as the cold of winter. At the northern extremity of the country the sun never sets for three months in summer, and in winter there is an uninterrupted night of the same duration, but this is qualified in such a manner by a constant revolution of dawn and twilight, by a serene sky, moon light, and aurora borealis, reflected from the white surface of the earth covered with snow, that the inhabitants are enabled to hunt, fish, and proceed with their ordinary occupations. The country abounds with excellent springs; and is remarkable for some surprising cataracts, in which the water rumbles over frightful precipices, and dashes among rocks with amazing impetuosity and noise.

The soil of Lapland is generally so chilled and barren, that it produces little or no grain or fruit-trees of any kind. This sterility, however, is not so much owing to the soil, which is in many places of a rich mould, as to want of industry; for in some districts the Swedes have tilled and manured pieces of ground that bear plentiful crops of rye. There is also great plenty of berries, such as black currants; what is called the Norwegian mulberry, growing upon a creeping plant, and much esteemed as antiscorbutic; rasp-berries, cran-berries, juniper berries, and bilberries. The tops of the

mountains are so much exposed to intense cold, and tempests of snow and hail, that no tree will grow near the summit; but in parts that are more sheltered we see fine woods of birch, pine, and fir, disposed by nature as if they had been planted by art in rows at regular distances, without any undergrowth or incumbrance below. Besides these trees, some parts of Lapland produce the service tree, the willow, the poplar, the elder, and the cornel.

Among the plants of this country, the principal is the angelica; which is greatly esteemed by the natives, who use it in their food. Here is likewise the acetosa or sorrel, which grows in great plenty, and is of much service on account of its antiscorbutic properties. They have also other kinds of herbs peculiar to the country, different kinds of grass, heath fern, and moss, which are all enumerated by Linnæus in his Flora Laponica. But the vegetable which is in greatest plenty, and of the most extensive use among them, is the lichen rangiferus. The rein-deer is wholly sustained in winter by this vegetable; and the Laplanders themselves boil it in broth as a cordial and restorative. They likewise use one sort of it as a soft, easy, and wholesome bed for their new born children.

Some silver and lead mines have been discovered in the provinces of Pitha and Lula; and two of copper, together with excellent veins of iron, in the district of Torno; but they are not at present worked with any considerable advantage. In some places there are veins of silver and gold mixed; but these mines are worked only for a few months in the summer, because the frost hinders the engines from playing. Here are found beautiful crystals, of a surprising magnitude, so hard and fine, that when polished they resemble real diamonds. In some places amethysts and topazes are also found, but pale and cloudy; also a great quantity of very curious stones, which are too hard to be worked by the tool of the mason. Some of these found on the banks of rivers and lakes, when they happen to bear the least resemblance to the figures of animals, the Laplanders remove to more conspicuous places, and adore as deities. The province of Torno affords some curious stones of an octagonal shape, regular, shining, and polished by the hand of nature. In some rivers they fish for pearls, which are generally pale; but some of them are as bright as the oriental pearls and much larger and rounder. These pearls are found in muscle-shells; and the fishery is not in the sea, but in the rivers.

Lapland, as well as Norway, is infested with a great number of grey wolves and bears, with whom the inhabitants wage perpetual war. The most honourable exploit among the Laplanders is that of killing a bear, and the heroes adorn their caps with a small plate of lead or pewter for every bear they have slain. The country abounds also with elks, beavers, and otters, which live here unmolested, and find plenty of fish for their subsistence. The forests of this country furnish haunts to a great number of beautiful martins and squirrels; which last change their colour every winter from brown to grey. Lapland is also the native country of the zibeling or sable, whose skin is extremely valuable. Here are likewise ermines, weasels, hares, large black cats which attend the Laplanders in hunting, and little prick-eared curs trained to the game. But the most remarkable animal of Lapland is the rein-deer.

These animals, so useful in various respects to the natives, are kept at no expence. In summer they feed upon grasses and alpine plants; in winter, as already mentioned, upon the lichen rangiferinus, or rein-deer lichen, and its varieties, which are so abundant as in many parts almost totally to cover the ground for the space of several miles, and which the sagacious animal discovers under the snow by the peculiar acuteness of its smell. Most of those used for draught are castrated when very young, and are larger and fatter than the bucks.

The woods, mountains, and rivers are well stocked with wild fowl; such as bustards, partridge, growse, heathcock, pheasants, lapwings, swans, wild-geese, wild-ducks, and all sorts of aquatic birds that build and breed in northern climates. In the beginning of the spring the swans go thither in numerous flights from the German Ocean; the lapwings follow in such swarms that they darken the sky as they pass along, and they scream so loud that they may be heard at a great distance. The rocks and mountains are likewise frequented by eagles, hawks, falcons, kites, and other birds of prey.

The rivers abound with delicious salmon from the gulf of Bothnia, trout, bream, and perch of exquisite flavour and amazing magnitude; and the inhabitants of Wardhus, or Danish Lapland, are well supplied with fish from the Northern Ocean.

With respect to insects, the flies hatched in the morasses and woods in summer are so numerous, that they often obscure the face of day; so venomous, troublesome, and intolerable, that the rein-deer fly to the tops of the highest mountains for shelter, and the Laplanders betake themselves to the sea-side, which is the least infested by these pestilent vermin. M. de Maupertuis, in his account of the voyage he made to Lapland in company with the other French mathematicians sent thither by the king to measure a degree of the meridian, gives us to understand, that on the tops of the mountains in Torno, the flies were so troublesome, that even the Finland soldiers, who are counted the most hardy troops in the service of Sweden, were obliged to cover their faces with the skirts of their coats from the attacks of these animals, which swarmed to such a degree, that the moment a piece of flesh appeared it was blackened all over. Some of these flies are very large, with green heads, and fetch blood from the skin wherever they strike. The Laplanders shroud themselves in the smoke of a large fire kindled for that purpose; yet even this disagreeable expedient was not sufficient to defend the French philosophers: they were obliged, notwithstanding the excessive heat, to wrap up their heads in garments made of the skins of rein-deer, called in that country lapmudes, and to cover themselves with a thick rampart of fir-boughs; yet all these precautions proved ineffectual. M. de Maupertuis observed a lake quite covered with little yellowish grains, resembling millet seed, which he supposed to be the chrysalises of some of these insects.

The Laplanders are very low in stature, and are likewise remarkable for having large heads. They are, also, ill-shaped, and the features harsh. They are, however, strong, hardy, and robust, insomuch that they will bear incredible fatigue; and it is remarkable that the stoutest Norwegian is not able to bend the bow of a Laplander. The women are much less homely than the men, and many of them are noted for a delicate and florid complexion.

These people are simple, honest, hospitable, and timorous; their timidity, however, respects war alone; for to many other species of dangers they expose themselves with surprising intrepidity, whether in ascending and descending mountains and precipices with their snow shoes and in sledges, or in venturing amidst whirlpools and cataracts in little slender boats made of thin fir boards, fastened together by thongs of leather, sinews of wild beasts, or tough and flexible twigs of willow and ozier. These boats are of different sizes, from two to six yards in length, managed with oars, and caulked with moss so tight as to keep out the water.

The Laplanders are partly settled, and in part wild and roving: the latter live in tents made with coarse cloth; the former are fixed in small villages near the lakes, and chiefly follow fishing. They build their cottages somewhat in the shape of a cone, by placing a circle of large trees or poles aslant in the earth, and close to each other, so that their tops meet, and form a small vent for the issue of the smoke: they cover the ground within with branches of trees. In spring their food consists principally of the eggs of water-fowl, which are extremely plentiful in those parts; in summer and autumn, of the birds themselves, and of various other of the partridge tribe; and in winter of the milk and flesh of the rein-deer and dried fish. They had, till lately no bread; but in lieu thereof used the inner rind of the pine tree dried and ground, and dried fish reduced to powder. They make confections and decoctions of berries, angelica, and sorrel, which they justly reckon to be preservitives against the scurvy. The Laplander is secured in the possession of uninterrupted health by temperence and exercise, which, together with the severity of the climate, brace his nerves to a very unusual pitch of strength, and fortify his constitution in such a manner, that he often lives to the age of 100, without feeling the least pang of distemper, or even perceiving his vigour in the least impaired; for it is not uncommon to see a Laplander in extreme old age hunting, fowling, skaiting, and performing all the severest exercises with undiminished agility.

The summer garb of the men consists of a long coat of coarse cloth, reaching down the middle of the leg, and girded round the waist with a belt or girdle; from which hang a Norway knife, and a pouch containing flints, matches, tobacco, and other necessaries, the girdle itself being decorated with brass rings and chains. Their caps are made of the skin of the northern diver, with the feathers on; and their shoes of the rein-deer skin, with the hair outwards. They wear no linen; but the garments of the better sort are of a finer cloth, and they delight in a variety of colours, though red, as the most glaring, is the most agreeable. In winter they are totally cased up in coats, caps, boots, and gloves, made of the reign-deer skins. In the Flora Lapponica, Linnæus says, Perhaps the curious reader will wonder how the people in Lapland, during the terrible cold that reigns there in winter, can preserve their lives; since almost all birds, and even some wild beasts, desert it at that time. The Laplander, not only in the day, but through the whole winter nights, is obliged to wander about in the woods with his herds of rein-deer. For the rein-deer never comes under cover, nor eat any kind of fodder, but a particular kind of liverwort. On this account the herdsmen are under a necessity of living continually in the woods, in order to take care of their cattle,

least they should be devoured by wild beasts. The Laplander easily does without more light, as the snow reflects the rays that come from the stars, and as the Aurora Borealis illuminates the air every night with a great variety of figures. No part of our body is more easily destroyed by cold than the extremities of the limbs which are most remote from the sun of this microcosm, the heart. The kibes that happen to our hands and feet, so common in the northern parts of Sweden, prove this. In Lapland you will never see such a thing; although, were we to judge by the situation of the country, we should imagine just the contrary, especially as the people wear no stockings, as we do, not only single, but double and treble. The Laplander guards himself against the cold in the following manner. He wears breeches made of rein-deer skins with the hair on, reaching down to his heels, and shoes made of the same materials, the hairy part turned outwards. He puts into his shoes slender eared broad leafed cyperus grass, (carex vecicaria, Spec. Pl. or the bladder Carex), that is cut in summer and dried. This he first combs and rubs in his hands, and then places it in such a manner that it not only covers his feet quite round, but his legs also; and being thus guarded, he is quite secured against the intense cold. With this grass they stuff their gloves likewise, in order to preserve their hands. As this grass keeps off the cold in winter, so in summer it hinders the feet from sweating, and at the same time preserves them from being annoyed by striking against stones, &c. for their shoes are very thin, being made, not of tanned leather, but the raw hid."

The women's apparel differ very little from that of the other sex; only their girdles are more ornamented with rings, chains, needle-cases, and toys that sometimes weigh 20 pounds. In winter, both men and women lie in their furs; in summer, they cover themselves entirely with coarse blankets to defend them from the gnats which are intolerable. The Laplanders are not only well disposed, but naturally ingenuous. They make all their own furniture, their boats, sledges, bows and arrows. They form neat boxes of thin birch boads, and inlay them with the horn of the rein deer. The Swedes are very fond of the Lapland baskets made of the roots of trees slit in long thin pieces, and twisted together so very nicely that they will hold water. Among the manufactures of this country we likewise number curious horn-spoons, and moulds in which they cast the trinkets of tin which adorn their girdles. Over and above these domestic occupations, the men within doors perform the office of cooks in dressing victuals for the family. The women act as taylors and embroiderers; they make clothes, shoes, and boots, and harness for the rein-deer: they spin thread of fur and knit it into caps and gloves that are very soft and warm. They draw tin into wire through a horn; and with this they cover the thread which they use in embroidering the figures of beasts, flowers, trees, and stars upon their caps and girdles.

The Laplanders make surprising excursions upon the snow in their hunting expeditions. They provide themselves each with a pair of skaits, or snow-shoes which are no other than fir-boards covered with the rough skin of the rein-deer, turned in such a manner that the hair rises against the snow, otherwise they would be too slippery. One of these shoes is usually as long as the person who wears it; the other

is about a foot shorter. The feet stand in the middle, and to them the shoes are fastened by thongs or withes The Laplander, thus equipped, wields a long pole in his hand, near the end of which there is a round ball of wood, to prevent its piercing too deep in the snow; and with this he stops himself occasionally. By means of these accoutrements he will travel at the rate of 60 miles a day, without being fatigued; ascending steep mountains, and sliding down again with amazing swiftness.

The Laplander not only travels on foot, but is provided with a carriage drawn by the rein-deer, in which he journeys with still greater rapidity. The sledge, called pulkha, is made in the form of a small boat, with a convex bottom, that it may slide the more easily over the snow: the prow is sharp and pointed, but the sledge is flat behind. The traveller is swathed in this carriage like an infant in a cradle, with a stick in his hand to steer the vessel, and disengage it from pieces of rock or stumps of trees that may chance to encounter it, in the rout. He must also balance the sledge with his body, otherwise he will be in danger of being overturned. The traces, by which this carriage is fastened to the rein-deer, are fixed to a collar about the animal's neck, and run down over the breast, between the fore and hind legs, to be connected with the prow of the sledge: the reins, managed by the traveller, are tied to the horns; and the trappings are furnished with little bells, the sound of which is agreeable to the animal.

With this draught at his tail, it has been reported that the rein-deer will fly like lightning over hill and dale at the rate of 200 miles a day. But this representation is greatly exaggerated. According to the best accounts, the common pace of the rein-deer is only at the rate of about four miles an hour; though, if he be pressed, he will travel 10 or 12 Swedish miles (70 or 84 English miles) in a day; but by such hard driving is generally destroyed. It, however, frequently happens, that he will persevere in his journey 50 miles without intermission, and without taking any refreshment, except occasionaly moistening his mouth with the snow. Before he sets out, the Laplander whispers in his ear the way he is to follow, and the place at which he is to halt, firmly persuaded that the beast understands his meaning; but, in spite of this intimation, he frequently stops short long before he has reached the journey's end; and sometimes he overshoots the mark by several leagues. In the beginning of winter the Laplanders mark the most frequented roads, by strewing them with fir-boughs; and indeed these roads are no other than path ways made through the snow by the rein-deer and the pulkhas; their being frequently covered with new snow, and alternately beaten by the carriage, consolidates them into a kind of causeway; which is the harder if the surface has felt a partial thaw, and has been crusted by a subsequent frost. It requires great caution to follow these tracts; for if the carriage deviates to the right or left, the traveller is plunged into an abyss of snow. In less frequented parts, where there is no such beaten road, the Laplander directs his course by certain marks which he has made on the trees.

The chief occupation of the Laplander is hunting, and this exercise they perform in various ways. In summer they hunt the wild beasts with small dogs, trained to the diversion. In winter they pursue them by their tracts upon the snow, skaiting with so

great velocity, that they very often run down the prey. They catch ermines in traps, and sometimes with dogs. They kill squirrels, martens, and sables, with blunt darts, to avoid wounding the skin. Foxes and beavers are slain with sharp pointed darts and arrows; in shooting which, they are accounted the best marksmen in the world. The larger beasts, such as bears, wolves, elks, and wild rein deer, they either kill with fire-arms, purchased in Sweden or Norway, or take in snares and pits dug in the forests.

Their particular laws relating to the chase are observed with great punctuality. The beast becomes the property of the man in whose snare or pit he is caught; and he who discovers a bear's den has the exclusive privilege of hunting him to death. The conquest of a bear is the most honourable achievement that a Laplander can perform; and the flesh of this animal they account the greatest delicacy on earth. The bear is always dispatched with a fusil, sometimes laid at a snare ready cocked and primed; but more frequently in the hands of the hunter, who runs the most imminent risk of his life, should he miss his aim of wounding the beast mortally. The death of a bear is celebrated by the Laplanders as a signal victory. The carcase is drawn to the cabin or hut of the victor by a rein-deer, which is kept sacred from any other work for a whole year after this service. The bear is surrounded by a great number of men, women, and children, reciting a particular hymn or song of triumph, in which they thank the vanquished enemy for having allowed himself to be overcome without doing any mischief to his conqueror, and welcome his arrival: then they make an apostrophe to heaven, expressing their acknowledgement to God, that he has created beasts for the use of men, and endued mankind with strength and courage to attack and overcome the fiercest of the brute creation. The hero is saluted by the women, who spit chewed elder-bark in his face. He is feasted three days successively, and his cap is decorated with an additional figure, wrought in tin wires.

The manner in which the young Laplander chooses a wife is equally remarkable and ludicrous. When he has pitched upon a female, he employs some friends as mediators with the father; and these being provided with some bottles of brandy the suitor accompanies them to the hut of his future father-in-law, who invites the mediators to enter; but the lover is left without until the liquor be drank, and the proposal discussed: than he is called in, and entertained with such fare as the hut affords: yet without seeing his mistress, who retires and goes out on this occasion. Having obtained leave of her parents to make his addresses in person, he puts on his best apparel, and is admitted to the lady, whom he salutes with a kiss: then he presents her with the tongue of a rein-deer, a piece of beaver's flesh, or some other sort of provision. She declines the offer, which is made in presence of her sisters and relations; but makes a signal to the lover to follow her into the fields where she accepts the presents. Thus encouraged, he begs her permission to sleep with her in the hut: if she consents, there is no further difficulty; if she disapproves of the proposal, she drops her presents on the ground.

When the lovers are agreed, the youth is permitted to visit his inamorata as often as he shall think proper: but every time he comes, he must purchase this

pleasure with a fresh bottle of brandy;' a perquisite so agreeable to the father, that he often postpones the celebrations of the nuptials for two or three years. At length the ceremony is performed at church by the priest of the parish. Even after this event, the husband is obliged to serve his father-in-law a whole year: at the expiration of which he returns to his own habitation with his wife, and her patrimony of rein-deer, and receives presents from all his friends and relations. From this period he sequesters his wife from the company of all strangers, especially of the male sex, and watches over her conduct with the most jealous vigilance

Many Lapland women are barren, and none of them are very fruitful. A woman immediately after delivery, swallows a draught of whale-fat: the child is washed with snow or cold water, and wrapped up in a hair skin. The mother is seldom above five days in the straw, and in 14 is generally quite recovered: then she carries the child to church to be baptized. Before she can reach the residence of the priest, she is often obliged to traverse large forests, mountains, lakes, and wide-extended wastes of snow. The infant is fastened in a hollowed piece of wood, stretched naked on a bed of fine moss, covered with the soft skin of a young rein-deer, and slung by two straps to the back of the mother, who always suckles her own child. At home this little cradle is hung to the roof of the hut, and the child lulled asleep by swinging it from one side to the other. The boys from their very infancy practise the bow; and are not allowed to break their fast until they have hit the mark. The female children are as early initiated in the business peculiar to their sex.

These people, though for the most part vigorous and healthy, are not altogether exempted from distemper. They are subject to sore eyes, and even to blindness, from the smoke of their huts, and the fire to which they are almost continually exposed. Some waste away in consumptions; others are afflicted with rheumatic pains and the scurvy; and a few are subject to vertigo and apoplexy. For the cure of all their internal disorders, they use no other medicine than the decoction of a certain species of moss, and when this cannot be procured, they boil the stork of angelica in the milk of the rein-deer. In order to remove a fixed pain, they apply a large mushroom, burning hot, to the part affected; and this produces a blister, which is supposed to draw off the peccant humour. To their wounds they apply nothing but the turpentine that drops from the fir-tree. When they are frost-bitten, (though according to the above extract from Linnæus this seldom or never happens), we are told that they thrust a red hot iron into a cheese made of rein-deer's milk, and with the fat that drops from it anoint the frozen member, which generally recovers. When a Laplander is supposed to be on his death bed, his friends exhort him to die in the faith of Christ, and bear his sufferings with resignation, by remembering the passion of our Saviour. They are not, however, very ready to attend him in his last moments; and as soon as he expires, quit the place with precipitation, apprehending some injury from his spirit or ghost, which they believe remains with the corpse, and takes all opportunities of doing mischief to the living. The deceased is wrapt up in woollen or linen, according to his circumstances, and deposited in a coffin by a person selected for that purpose: but this office he will not perform, unless he is first secured from the ill offices of the manes,

by a consecrated brass ring fixed on his left arm. The christian religion in this country has not yet dispelled all the rites of heathenish superstition: together with the body they put into the coffin an axe, a flint and steel, a flask of brandy, some dried fish and venison. With the axe the deceased is supposed to hew down the bushes or boughs that may obstruct his passage in the other world: the steel and flint are designed for striking a light, should he find himself in the dark at the day of judgment; and on the provision they think he may subsist during his journey.

The Muscovite Laplanders observe other ceremonies, that bear an affinity to the superstitions of the Greek Church. They not only supply the defunct with money, but likewise provide him with money for the porter of paradise, and a certificate signed by the priest, and directed to St. Peter, specifying, that the bearer had lived like a good christian, and ought to be admitted into heaven. At the head of the coffin they place a little image of St. Nicholas, who is generally reverenced in all parts of Muscovy as a friend to the dead.

Before the interment, the friends of the deceased kindle a fire of fir-boughs near the coffin, and express their sorrow in tears and lamentations. They walk in procession several times round the body, demanding, in a whining tone, the reason of his leaving them on earth. They ask whether he was out of humour with his wife; whether he was in want of meat, drink, cloathing, or other necessaries; and whether he had not succeeded in hunting and fishing? These and other interrogations, to which the defunct makes no reply, are intermingled with groans and hideous howlings; and, between whiles, the priest sprinkles the corpse and the mourners alternately with holy water. Finally, the body is conveyed to the place of interment on a sledge drawn by a rein-deer; and this, together with the clothes of the deceased, are left as the priest's perquisite. Three days after the burial, the kinsmen and friends of the defunct are invited to an entertainment, where they eat the flesh of the rein-deer which conveyed the corpse to the burying ground. This being a sacrifice to the manes, the bones are collected into a basket and interred. Two thirds of the effects of the deceased are inherited by his brothers, and the remainder divided among his sisters; but the lands, lakes, and rivers, are held in coparceny by all the children of both sexes, according to the division made by Charles IX. of Sweden, when he assigned a certain tract of land to each family.

The commerce of the Laplanders is more considerable than one would expect in a desert country, inhabited by a savage, ignorant people. They export great quantities of fish to the northern parts of Bothnia and White Russia They likewise trade with the neighbouring countries of Norway, Sweden, Muscovy, and Finland, by selling rein-deer, fine furs, baskets, and toys of their own manufacture, dried pikes, and cheese made of the rein-deer's milk. In return for these commodities, they receive rix-dollars, woollen clothes, linen, copper, tin, flour, oil, hides, needles, knives, spirituous liquors, tobacco, and other necessaries. The Laplanders march in caravans to the fairs in Finland and Norway: these are composed of a long string of 30 or 40 rein-deer and pulkhas tied to one another, the foremost being led by a Laplander on foot. When they have chosen a spot for an encampment, they form a large circle of their rein-deer

and pulkhas ready yoked; and the animals lying down quietly on the snow, are fed with moss by their masters. The people kindle great fires, around which men, women, and children sit, and sup on dried fish; but the more voluptuous spread out bear skins under their tents, where they lie at their ease and smoke tobacco.

The revenue arising from this country is of no great consequence: it is paid partly in rix-dollars, but chiefly in furs; nay, some that can produce neither, pay the tribute in dried pikes.) The produce of the mines forms likewise a considerable article. Fifty squirrels' skins, or one fox skin, with a pair of Lapland shoes, are valued at one rix-dollar. Part of the taxes is allotted for the maintenance of the Lapland clergy.

The frightful aspect of this country has been deemed a more effectual defence than artificial bulwarks and garrisons, of which here are none; or than the arms and courage of the natives, who are neither warlike in themselves, nor in the least tinctured with discipline.

The Lapanders call themselves Salme-Same, and Samen-Almatjeb. Their country they denominate Same-Landa, or Same-ændan; the Swedes stile it Lapland, or Lapp-marken, and the inhabitants Lappar. The natives of those districts under the dominion of Sweden and Denmark are Lutherans; while many of those who are subject to Russia are still pagans. Swedish Lapland contains about eight churches, which, in some parts, lie at so great distance from each other, that a native is frequently obliged to travel three days in order to attend divine service.

The Laplanders, before their conversion to Christianity, which was not till lately introduced among them, possessed no books or manuscripts, though they knew many traditional histories and songs of antient heroes and princes, who once reigned over them; but involved in great uncertainty, and mixed with the most fabulous accounts. They have now a translation of the New Testament in their language; and many of the natives are able to read and write.

NORWAY.

Norway is a country of Europe, lying between 57° and 72° of north latitude, and between 5° and 31° of longitude east from London; extending in length about 1000 miles, in a direct line from Lindesnaes, in the diocese of Christiansand, to the North Cape, at the extremity of Finmark. Its breadth, from the frontiers of Sweden westward to Cape Statt, may amount to about 300 miles; but from thence the country becomes gradually narrower towards the north. On the south it is bounded by the Schagen rock, or Categate, the entrance into the Baltic; on the east it is divided from Sweden by a long ridge of high mountains; and on the west and north it is washed by the Northern Ocean. In the southern part of Norway, the country is craggy, abrupt, and mountainous, diversified sometimes with fertile and even delightful spots. In these respects it resembles Switzerland. the prospects and the meteorological phenomena seem to be very similar. The range of the thermometer is of great extent; in the summer having risen to 88°, and in the winter fallen to 40°: in general it is between 80 and 50°.

Respecting the population of Norway, it is difficult to attain to certainty. An author

of some note (Coxe) seems to think they amount to 750,000; but he appears to have over-rated them considerably.

The Norwegian peasants are free, well-clothed, well-lodged, spirited, active, frank, open, and undaunted. They are said to have a very considerable resemblance to the peasants of Switzerland The soil is too thin for the plough: corn is therefore obtained from the neighbouring states: and the chief employments of the peasants of Norway is grazing. The following extract from Mr. Coxe, being a description of the scene near Christiana, is not beside our purpose, and may not, perhaps, be disagreeable to our readers.

"As we approached Christiana, the country was more wild and hilly, but still very fertile and agreeable: and about two miles from the town we came to the top of a mountain, and burst upon as fine a view as ever I beheld. From the point on which we stood in raptures, the grounds, laid out in rich enclosures, gradually sloped to the sea; below us appeared Christiana. situated at the extremity of an extensive and fertile valley, forming a semicircular bend along the shore of a most beautiful bay, which, being inclosed by hills, uplands, and forests, had the appearance of a large lake. Behind, before, and around, the inland mountains of Norway rose on mountains covered with dark forests of pines and fir, the inexhaustible riches of the north. The most distant summits were capped with eternal snow. From the glow of the atmosphere, the warmth of the weather, the variety of the productions, and the wild beauties of the adjacent scenery, I could scarcely believe that I was nearly in the 60th degree of northern latitude."

The coast of Norway, extending above 300 leagues, is studded with a multitude of small islands, affording habitation to fishermen and pilots, and pasture to a few cattle. They form an infinite number of narrow channels, and a natural barrier of rocks. which renders Norway inaccessible to the naval power of its enemies. Attempts of this kind are the more dangerous, as the shore is generally bold, steep, and impending; so that close to the rocks the depth of the sea amounts to 100, 200, or 300 fathoms. The perils of the North Sea are moreover increased by sudden storms, sunk rocks, violent currents, and dreadful whirlpools. The most remarkable vortex on this coast is called Moskoestrom, from the small island Moskoe, belonging to the district of Lofoden, in the province of Nordland. In time of flood, the stream runs up between Lofoden and Moskoe with the more boisterous rapidity; but in its ebb to the sea, it roars like a thousand cataracts, so as to be heard at the distance of many leagues. The surface exhibits different vortices; and if in one of these any ship or vessel is absorbed, it is whirled down to the bottom, and dashed in pieces against the rocks. These violent whirlpools continue without intervals, except for a quarter of an hour, at high and low water, in calm weather; for the boiling gradually returns as the flood or ebb advances. When its fury is heightened by a storm, no vessel ought to venture within a league of it. Whales have been frequently absorded within the vortex, and howled and bellowed hideously in their fruitless endeavours to disengage themselves. A bear in attempting to swim from Lofoden to Moskoe, was once hurried into this whirlpool, from whence he struggled in vain for deliverance, roaring so loud as to be heard on shore; but,

notwithstanding all his efforts, he was borne down and destroyed. Large trees being absorded by the current, are sucked down, and rise again all shattered into splinters. There are three vortices of the same kind near the islands of Ferroe.

Norway is divided into the four governments of Aggerhus, Bergen, Drontheim, and Wardhus, besides that of Bahus, which is now subject to Sweden. The province of Aggerhus comprehends the south-east part of Norway, extending in length about 300 miles. Its chief towns are Christiana, the see of a bishop, suffragan to the metropolitan see of Drontheim, where the sovereign court of justice is held, in presence of the viceroy and the governor of the province; Aggerhus, about 15 miles to the south-west of Christiana; Frederickshall, or Frederickstadt, in the siege of which Charles XII. of Sweden lost his life, Saltzberg, Tonsberg, Alleeh, Hammat, and Hollen.

The government of Bergen lies in the most southerly and westerly part of Norway, including the city of the same name, which is an episcopal see, and a place of considerable trade; and Staffhanger, situated in the bay of Buckenfior, about 80 miles to the southward of Bergen.

The third province, called Drontheim or Trontheim, extends about 500 miles along the coast: and is but thinly peopled. The chief town Drontheim, seated on a little gulph at the mouth of the river Nider, is the only metropolitan see in Norway; and carries on a considerable trade in masts, deals, tar, copper, and iron. Leetstrand, Strouden, Scoerdale, Opdal, Romsdael, and Solendael, are likewise places of some traffic. The northern division of Drontheim, called the sub-government of Salten, comprehends the towns Melanger and Scheen. The provinces of Wardhus, extending to the North Cape, and including the islands, is divided into two parts; namely, Finmark and Norwegian Lapland. The chief town, which is very considerable, stands upon an island called Ward, from whence the place and the government derive their name. The province of Bahus, though now yielded to the Swedes, is reckoned part of Norway, being a narrow track of land, about 90 miles in length, on the coast of the Categate.

The great chain of Norway mountains, running from north to south, called indifferently Rudfield, Sudefield, Skarsfeld, and Scoreberg, is known in different parts by other apellations; such as Dofrefield, Lamsfield, Sagnefield, Filefield, Halnefield, Hardangerfield, Joklefield, Byglefield, Hicklefield, and Hangfield. The height and breadth of this extensive chain likewise vary in different parts. To pass to the mountain Hardanger, a man must travel 70 English miles, whereas Filefield may be about 50 over.

This last rises about two miles and a half in perpendicular height; but Dofrefield is counted the highest mountain in Norway, if not of Europe. The river Drivane winds along the side of it in a serpentine course, so as to be met nine times by those who travel the winter road the other side of the chain. The bridges are thrown over roaring cataracts, and but indifferently fastened to the steep rocks on either side; so that the whole exhibits a very dreadful appearance, sufficient to deter the traveller from hazarding such a dangerous passage; for which reason, people generally choose the road over Filefield, which is much more tedious. This, however, is the post-road used

by the king's carriages. The way is distinguished by posts fixed at the distance of 200 paces from each other, that, in snowy or dark weather, the traveller may not be bewildered. For the convenience of resting and refreshing there are two mountain-stoves or houses, maintained on Filefield, as well as upon other mountains, at the expence of the public, and furnished with fire, light, and kitchen utensils. Nothing can be more dismal and dreary than these mountains, covered with eternal snow, where neither house, tree, nor living creature is to be seen, but here and there a solitary rein-deer, and, perchance, a few wandering Laplanders.

In travelling from Sweden to Nordenfields, there is only one way of avoiding this chain of mountains; and that is, where it is interrupted by a long deep valley, extending from Romsdale to Guldbrandsdale. In the year 1612, a body of 1000 Scots, commanded by Sinclair, and sent over as auxiliaries to the Swedes, were put to the sword in this defile, by the peasants of Guldbrand, who never give quarter.

Beside this chain, there is a great number of detached mountains over all the country, that form valleys and ridges, inhabited by the peasants. Some of these are of incredible height, and others exhibit very remarkable appearances. In sailing up Joering creek, on the left hand the sight is astonished with a group of mountains, resembling the prospect of a city, with the Gothic towers and edifices. In the parish of Oerskong is the high mountain Skopshorn, the top of which represents the figure of a fortification, with regular walls and bastions In the district of Hilgeland appears a very high range of mountains, with seven pinnacles or crests, known by the appellation of the Seven Sisters, discernible a great way off at sea. To the southward of this range, though in the same district, rises the famous mountain Torghatten, so called because the summit resembles a man's head with a hat on, under which appears a single eye, formed by an aperture through the mountain, 150 ells high, and 3000 ells in length. The sun may be seen through this surprising cavity, which is passable by the foot of travellers. On the top of the mountain we find a reservoir of water, as large as a moderate fish-pond; in the lower part is a cavern, through which a line, 400 fathoms in length, being let down, did not reach the bottom.

At Herroe, in Sundmoer, is another cavern, called Dolsteen, supposed to reach under the sea to Scotland; which, however, is no more than an idle tradition. In the year 1750, two clergymen entered this subterranean cavity, and proceeded a considerable way, until they heard the sea dashing over their heads; the passage was wide, and as high as an ordinary church, the sides perpendicular, and the roof vaulted. They descended one flight of natural stairs; but arriving at another, they were afraid to penetrate farther: they had gone so far, however, that two candles were consumed in their progress and return. A cavern of a very curious nature, serving as a conduit to a stream of water, penetrates through the sides of the mountain Limur. In the district of Rake, in the neighbourhood of Frederickshall, are three cavities in a rock; one of which is so deep, that a small stone, dropped down, does not reach the bottom in less than two minutes; and then the sound it produces is pleasant and melodious, not unlike the sound of a bell.

The vast mountains and rugged rocks that deform the face of this country are pro-



BIRDS OF THE NORTHERN REGION

ductive of numberless inconveniencies. They admit of little arable ground: they render the country in some parts impassable, and every where difficult to travellers: they afford shelter to wild beasts, which come from their lurking holes, and make terrible havoc among the flocks of cattle: they expose the sheep and goats, as well as their peasants, to daily accidents of falling over precipices; they occasion sudden torrents and falls of snow, which descend with incredible impetuosity, and often sweep away the labours of the husbandman; and they are subject to dreadful disruptions, by which huge rocks are rent from their sides, and hurling down, overwhelm the plains below with inevitable ruin. The peasants frequently build their houses on the edge of a steep precipice, to which they must climb by ladders, at the hazard of their lives; and when a person dies, the corpse must be let down with ropes, before it can be laid in the coffin. In the winter, the mail is often drawn up the sides of steep mountains. Even in the king's road, travellers are exposed to the frequent risks of falling over those dreadful rocks; for they are obliged to pass over narrow path-ways, without rails or rising on the sides, either shored up with rotten posts, or suspended by iron bolts fastened in the mountains.

In the narrow pass of Naeroe is a remarkable way of this kind, which, above 600 years ago, the famous king Surre caused to be made for the passage of his cavalry; and even this would have been found impassable by any [illegible] than those of Norway, which are used to climb the rocks like goats. Another very difficult and dangerous road is that between Shogstadt and Vang in Volders, along the side of a steep mountain, in some places so narrow, that if two travellers on horseback should meet in the night, they would find it impracticable either to pass each other, or turn back. In such a case their lives could not be saved, unless one of them should alight, and throw his horse headlong into the lake below, and then cling to the rock, until the other could pass. When a sheep or goat makes a false step to the projection of a rock, from whence it can neither ascend nor descend, the owner hazards his own life to preserve that of the animal. He directs himself to be lowered down from the top of the mountain, sitting on a cross stick, tied to the end of a long rope; and when he arrives at the place where the creature stands, he fastens it to the same cord, and it is drawn up with himself. Perhaps the other end of the rope is held by one person only: and there are some instances in which the assistant has been dragged down by the weight of his friend, so that both have perished. When either man or beast has had the misfortune to fall over very high precipices, they have not only been suffocated by the repercussion of the air, but their bodies have been always burst before they reached the ground. Sometimes entire crests of rocks, many fathoms in length and breadth, have fallen down at once, creating such a violent agitation of the air, as seemed a prelude to the world's dissolution. At Steenbroe, in Laerdale, a stupendous mass, larger than any castle in the universe, appears to have been severed and tumbled from the mountain in large, sharp, and ragged fragments, through which the river roars with hideous bellowing. In the year 1731, a promontory on Sundmoer, called Rammersfield, that hung over Nordal Creek, suddenly gave way, and plunged into the water; which swelled to such a degree, that the church of Strand, though half a league on the other side of the bank, was overflowed:

the creek, however, was not filled up; on the contrary, the fishermen declare they find no difference in the depth, which is said to exceed 900 fathoms.

The remarkable rivers of Norway are these: the Nied, issuing from Tydalen, on the borders of Sweden, runs westward into the lake Selboe; and afterwards, turning to the northward, passes by the city of Drontheim, to which it anciently gave the name of Nideros and Nidrosia. Sule Ely, that descending from Sulefield; runs with a rapid course through Nordale into the sea. Gulen, which rises near Sffirsfield in the north, and running 20 leagues westward, through Aalen, Hlotaalen, Storeñ, and Melhuus, discharges itself into the sea, about a league to the west of Drontheim. In the year 1544, this river buried itself under ground; from whence again it burst forth with such violence, that the earth and stones, thrown up by the eruption, filled the valley, and formed a dam, which, however, was soon broken and washed away by the force of the water. Divers churches, 48 farm-houses, with 250 persons, were destroyed on this occasion. Otteroen, a large river, taking its rise from the mountain Agde, runs about 30 leagues through Seeterdale and Efie, and disembogues itself into the cataract of Wiland.

The river Syre rises near the mountain Lang, and winds its course through the vale of Syre into the lake of Lunde, in the diocese of Christiansand; thence it continues its way to the sea, into which it discharges itself through a narrow strait formed by two rocks. This contraction augments its impetuosity, so that it shoots like an arrow into the sea, where it produces a very great agitation. Nid and Sheen are two considerable rivers, issuing out of Tillemark. Their waterfalls have been diverted, with infinite labour, by canals and passages cut through the rocks, for the convenience of floating down the timber. Tyrefiord, or Dramme, is in the neighbourhood of Honifosse, joined by two rivers from Oedale and Hadeland, and disembogues itself into the sea near Bragness. Loven rises in the highest part of Nummedal, and runs through Konsberg to the sea near Laurwig. Glaamen is the largest river of Norway, distinguished by the name of Stor-Elvin, or the Great River. It derives its origin from the mountain Dotre, from whence it winds all along the plains of Oesterdale and Soloe; then joins the Vorme, another considerable river, rising out of Mioes and Guldbrandsdale. These being joined, traverse the lake Oeyeren; and thence issuing, run on to Sarp, near Frederickstadt.

Norway abounds with fresh water lakes; the principal of which are, Rysvand in Nordland, Snaasen, Selboe, the Greater and Lesser Mioes, Slirevand, Sperdille, Rand, Vestn, Saren, Modum, Lund, Norsoe, Huidsoe, Farisvand, and Oeyevand: all these are well stocked with fish, and navigable for large vessels. Wars have been formerly carried on upon these inland seas; in some of which are small floating islands, or parcels of earth, with trees on them, separated from the main land, and probably preserved in compact masses by the roots of trees, shrubs, and grass, interwoven in the soil. In the year 1702, the family seat of Borge, near Frederickstadt, being a noble edifice, with lofty towers and battlements, suddenly sunk into an abyss 100 fathoms deep, which was instantaneously filled up by a piece of water 300 ells in length and about half as broad. Fourteen persons, with 200 head of cattle, perished in this catastrophe, which

was occasioned by the river Glaamen precipitating itself down a water-fall near Sarp; and undermining the foundation. Of all the water-falls in Norway this of Sarp is the most dangerous for its height and rapidity. The current drives 17 miles; and roars with such violence, that the water, being dashed and comminuted among the rocks, rises in the form of rain, where a beautiful rain-bow may be always seen when the sun shines. In antient times this cataract was made use of for the execution of traitors and other malefactors; they were thrown down alive, that they might be dashed in pieces on the points of rocks, and die in a dreadful commotion, analogous to those they had endeavoured to excite in the community.

Great part of Norway is covered with forests of wood, which constitute the principal article of commerce in this country. They chiefly consist of fir and pine, for which great sums are received from foreigners, who export an immense number of masts, beams, planks, and boards. Besides, an incredible quantity is consumed at home, in building houses, ships, bridges, piles, moles, and fences; over and above the vast demand for charcoal to the founderies, and fuel for domestic uses. Nay, in some places the trees are felled for no other purpose but to clear the ground and to be burned into ashes for manure. A good quantity of timber is yearly exported to Scotland and Spain: but this is inconsiderable when compared to the vast exports from Drammen, Frederickshall or Frederickstadt, Christiana, Skeen, Arendal, Christiansand, Christian-Bay, and Drontheim.

The masts and large beams are floated down the rivers, and the rest is divided into boards at the saw-mills. These works supply a vast number of families with a comfortable subsistence. A tenth part of all sawed timber belongs to his Danish majesty, and makes a considerable branch of his revenue. The forests in Norway are so vast and thick, that the people seem to think there can never be a scarcity of wood, especially as the soil is peculiarly adapted for the production of timber: they therefore destroy it with a wasteful hand; insomuch that more wood rots in Norway than is burned in the whole kingdom of Denmark. The best timber grows in the provinces of Saltan, Helleland Romsdale, Guldbrandsdale, Oesterdale, Soloe, Valders, Hallingdale, Sognifiord, Tellemark, and the lordship of Nedene.

The climate of Norway is very different in different parts of the kingdom. At Bergen the winter is so moderate, that the seas are always open and practicable both to mariners and fishermen, except in creeks and bays, that reach far up into the country towards Filefield, when the keen north east wind blows from the land. On the east side of Norway from the frontiers of Sweden to Filefield, the cold generally sets in about the middle of October with great severity, and lasts till the middle of April; during which interval the waters are frozen to a very considerable thickness, and the face of the country is covered with snow. In the year 1719, 7500 Swedes, who intended to attack Drontheim, perished in the snow on the mountain of Ruden, or Tydel, which separates Jempteland in Sweden from the diocese of Drontheim. A company of 200 Norwegian sledgemen, under major Emahus, found them all frozen to death on the ridge of the mountain, where they had been surprised by a storm accompanied with snow, hail, and extreme cold. Some of these unhappy victims appeared sitting, some

lying, and others kneeling in a posture of praying. They had cut in pieces their muskets, and burned the little wood they afforded. The generals Labarre and Zoega lost their lives: and of the whole corps, consisting originally of 10,000, no more than 2500 survived this dreadful catastrophe.

The cold is still more intense in that part of Norway called Finmark, situated in the frigid zone near the polar circle. But if the winter is generally cold, the summer is often excessively hot, in Norway. The rays of the sun are reverberated from the sides of the mountains so as to render the weather close and sultry in the valleys; besides, the sun's absence below the horizon is so short, that the atmosphere and mountains have not time to cool. The heat is so great, that vegetation is remarkably quick. Barley is sown, grows, ripens, and is reaped, in the space of six weeks or two months. The longest day at Bergen consists of 19 hours; the sun rising at half an hour after two, and setting at half an hour after nine. The shortest day does not exceed six hours; for the sun rises at nine in the morning, and sets at three in the afternoon. In the beginning of the year the daylight increases with remarkable celerity; and, at the approach of winter, decreases in the same proportion. In summer one may read and write at midnight by the light of the sky. Christian V while he resided at Drontheim, used to sup at midnight without candles. In the district of Tromsen, at the extremity of Norway, the sun is continually in view at midsummer. It is seen to circulate day and night round the north pole, contracting its orbit, and then gradually enlarging it until at length it leaves the horizon. In the depth of winter, therefore, it is for some weeks invisible, and all the light perceived at noon is a faint glimmering for about an hour and an half, proceeding from the reflection of the sun's rays from the highest mountains. But the inhabitants of these provinces are supplied with other lights that enable them to follow their employments in the open air. The sky being generally serene, the moonshine is remarkably bright, and, being reflected from the mountains illuminates the valleys. They are also assisted by the Aurora Borealis, which is very frequent in the northern parts of Europe.

The air of Norway is generally pure and salubrious. On the sea coasts, indeed, it is rendered moist by vapours and exhalations: but in the midland parts of the country, towards the mountains the climate is so dry, that meal may be kept for many years without being worm-eaten or damaged in the least. The inhabitants have no idea of sickness, except what is occasioned by excesses. It is said, that in the vale of Guldbrand the inhabitants live to such extreme old age, that they become weary of life, and cause themselves to be removed to a less salubrious climate, whereby they may have a chance of dying the sooner. In consumptions, however, the moist air on the sea-side is found to be most agreeable to the lungs in respiration. Norway, being a mountainous country intersected by creeks, abounding with lakes, rivers, and snow, must be subject to frequent rains; and from sudden thaws the inhabitants are sometimes exposed to terrible disasters.

Vast masses of snow, falling from precipices, overwhelm men, cattle, boats, houses, nay even whole villages. About two centuries ago, a whole parish was covered and destroyed by an immense mass of snow; and several domestic utensils, as scissars,

knives, and basons have been at different times brought to light by a rivulet that runs under the snow, which has been gradually hardened and increased by repeated frosts and annual accessions.

The winds that chiefly prevail on the western coast are those tnat blow from the south; whereas, on the other side of Filefield, the winds that produce and continue the hard frosts are always northerly. In the summer, there is a kind of regular trade-wind on the coast of Bergen. In the forenoon the sea begins to be cooled with a westerly breeze, which continues till midnight. Then the land breeze begins from the east, and blows till about ten in the morning. The coast is likewise very subject to sudden squalls and storms. Hurricanes sometimes rise at sea; and in these latitudes the phenomenon called a water-spout is not uncommon. One of these in the neighbourhood of Ferroe is said to have sucked up with the water some lasts of herrings, which were afterwards dropped on Kolter, a mountain 1200 feet high.

The fresh water of Norway is not very light or pure; but on the contrary is generally turbid, and deposits a sediment of adventitious matter, being sometimes impregnated with ochre and particles of iron. Nevertheless it is agreeable to the taste, and remarkably salubrious; as appears from the good health of the common people, who drink little or no other liquor.

The soil of Norway varies in different places, according to the situation of rock or valley. The mountains here, as in every other country, are bare and barren; but the earth washed down from them by the rains enriches and fertilizes the valleys. In these the soil generally consists of black mould, sand, loam, chalk, and gravel, lying over one another in unequal strata, and sometimes in three or four successions: the mould that lies uppermost is very fine and mellow, and fit to nourish all sorts of vegetables. There is also clay found in different parts of this kingdom, of which the inhabitants begin to make earthen ware: but bricks and tiles are not used in building. The face of the country is in many places deformed by large swamps and marshes, very dangerous to the traveller. Near Leessoe, in the diocese of Christiansand, a wooden causeway is extended near a mile over a morass; and if a horse or any other animal should make a false step, he will sink at once into the abyss, never to rise again.

In a cold country like Norway, roughened with rocks and mountains, interspersed with bogs, and covered with forests, we cannot expect to find agriculture in perfection. The ploughed lands, in respect to mountains, woods, meadows, and wastes, do not exceed the proportion of 1 to 80; so that the whole country does not produce corn to maintain above half the number of its inhabitants. The peasants are discouraged from the practice of husbandry by the frequency of accidents that seem peculiar to the climate. Even in the fruitful provinces of Guldbrandsdale, Oesterdale, and Soloer, as well as in other places where the corn appears in the most flourishing condition, the whole hope of the harvest is sometimes destroyed in one night by a sudden frost that nips the blade and extinguishes the vegetation. The kingdom is moreover visited by some unfavourable years, in which the sun seems to have lost his genial power; the vegetables are stunted; the tree bud and bloom, yet bear no fruit; and the grain,

though it rises, will yet produce nothing but empty ears and straw. This calamity, however, rarely occurs; and in general the cultivated parts of Norway yield plentiful crops of excellent rye, barley, and oats. The most fruitful provinces are Nordland, Inderbarre, and Numedale, in the diocese of Drontheim; Sogeifiord and Vars, in that of Bergen; Jedderen, Ryefylk, Raabygdelag, and the lordship of Nedenes, in the diocese of Christiansand; Hedemark in the diocese of Aggerhuis: Hadeland, Toten, Romerige, Ringerige, and Guldbrandsdale: these territories not only produce grain enough for their own consumption, but likewise support their neighbours, and even supply part of Sweden. Pease are likewise propagated in this country, together with wheat, buck-wheat, hops, hemp, and flax, but not to any considerable advantage The meadows are well stored with pasturage for sheep and cattle, and the fields are productive of those vegetables which are common in other northern countries. Within these 50 years the people of Norway have bestowed some attention on the culture of gardens, which in former times was so neglected, that the cities and towns were supplied with leeks, cabbage, and roots from England and Holland. At present, however, the Norwegians raise their own culinary and garden roots and vegetables, which thrive there as well as in any other country. The scurvy being a disease that prevails along the sea coast, nature hath scattered upon it a variety of herbs efficacious in the cure of that distemper; such as angelic, rose-wort, gentian, cresses, trefoil, sorrel, scurvy-grass, and a plant called erich's-grass, that grows in great plenty on the islands of Northland: from whence the people of the continent fetch away boat loads of it, to be preserved in barrels as a succedaneum for cabbage. There are also a few noxious vegetables little known in any country but Norway. In Guldbrandsdale is a species of grass called sellnape; the root of which is so poisonous, that any beast which eats of it dies immediately, the belly bursting; nay, the carnivorous fowls that prey upon the carcase of the beast meet with the same fate: children have been more than once poisoned by this root, which nevertheless is sometimes used externally as an amulet for arthritic disorders.

Another vegetable pernicious to the cattle is the Gramen ossifiagum Norwegiense, which is said to mollify the bones of the cattle which feed upon it. Among the noxious plants of Norway we may also reckon the iglegrass, fatal to sheep and goats; the tour-grass, which affects horses and cows with a sort of lethargy; and the plant torboe or histe-spring, which produces nearly the same effect on horses, but is not at all prejudicial to cows, sheep, or any ruminating animals. The herb tute, not unlike angelica, operates nearly in the same manner; yet the bears are said to feed upon it with peculiar relish; and when their hair begin to fall off by feeding upon this plant, they cure themselves by eating the flesh of animals.

The common fruit trees thrive tolerably well in Norway, the inhabitants of which have plenty of cherries, apples, and pears. Some kinds of plumbs attain maturity; which is seldom the case with grapes, apricots, and peaches. But even the apples and pears that ripen here are summer fruit; that which grows till the winter seldom coming to perfection. Great variety of agreeable berries are produced in different parts of this kingdom; such as the hagebar, a kind of sloes; an infusion of which in wine makes

a pleasant cooling liquor; juniper berries, corinth, red and white soelbar or sun-berries, raspberries, gooseberries, blackberries, strawberries, &c. with many other species, that seem natives of Norway and Sweden. Among these are the tranæbar, the produce of the n vtillus repens, red and austere, found in the spring in perfection under the snow, and much relished by the rein-deer; crakebeer, resembling bilberries, deemed a powerful anti-scorbutic; agerbeer, larger and blacker than bilberries, of a pleasant acid, ripened by cold, and used as cherries for an infusion in wine; and finally tyltebeer, a red pleasant berry, growing on a short stem, with leaves like those of box: they are plucked off by handfuls, and sent to Denmark to be preserved for the table, where they are eaten by way of desert.

Of the trees that grow wild in Norway, the principal are the fir and the pine. The first yields an annual revenue of 1,000,000 of rix-dollars, if we include the advantages resulting from the saw-mills and the masts; one of which last has been known to sell for 200 rix-dollars The red fir-tree, which grows on the mountains, is so rich in turpentine as to be almost incorruptible. Some of the houses belonging to the Norway peasants, built of this timber, are supposed to be above 400 years standing. In Guldbrandsdale the house is still to be seen standing in which king Olaf lodged five nights, above 700 years ago, when he travelled round the kingdom to convert the people to the Christian faith. Even 100 years after the trunk of the fir-tree has been cut down, the peasants burn the roots for tar, which is a very profitable commodity. In the fens, the resin of the fir tree is by nature transformed into a substance which may be called Norway frankincense. The buds or pine-apples of this tree, boiled in stale beer, make an excellent medicine for the scurvy; less unpleasant to the taste, though as efficacious as tar water

The pine tree is more tall and beautiful than the fir, though inferior to it in strength and quality; for which reason the planks of it are sold at an inferior price, and the peasants waste it without remorse. Norway likewise produces some forests of oak, which is found to be excellent for ship building Here also grow plenty of elm-trees the bark of which, being powdered, is boiled up with other food to fatten hogs, and even mixed by the poor among their meal; also the ash, from which the peasants distil a balsam used in certain disorders, and which is used both externally and internally. Many other trees flourish in this country, an enumeration of which would prove too tedious. Hazels grow here in such abundance, that 100 tons of the nuts are annually exported from Bergen alone.

A great diversity of stones is found in Norway, some of which are of a surprising figure. Several mountains consist chiefly of a brown pebble, which decays with age; nay, it sometimes dissolves, and drops into the sea, and the cement being thus loosened, a terrible disruption ensues. In some places the grey and black pebbles are intermixed with iron, copper, lead, silver, and gold. The ground in certain districts is covered with the fragments of rocks that have been precipitated from the summits of mountains, and broken by their fall into innumerable shivers. Between 20 and 30 years ago, in the neighbourhood of Bergen, a man was suddenly overwhelmed with such a mass, which formed a kind of vault around him. In this dreadful tomb he remained

alive for several weeks. By his loud cries the place of his confinement was discovered; but it was found impossible to remove the large stone by which he was inclosed. All that his friends could do for him was, to lower down meat and drink through some crevices; but at length the stones fell in, and crushed him to death.

In Norway are inexhaustible quarries of excellent marble, black, white, blue, grey, and variegated; together with some detached pieces of alabaster, several kinds of spar, chalk-stone, cement-stone, sand-stone, mill-stone, baking-stone, slate, talc, magnets, and swine-stone, a production natural to Norway and Sweden, of a brown colour, fœtid smell, in texture resembling crystal, and deriving its name from a supposed efficacy in curing a distemper incident to swine. Here also is found the amianthus or stone-flax, of which incombustible cloth may be made. Norway, however, affords no flints, but plenty of pyrites or quartz, beautiful crystals, granites, amethysts, agate, thunder-stones, and eagle-stones. Gold has formerly been found in small quantities in the diocese of Christiansand, and coined into ducats. There is at present a very considerable silver mine wrought at Kongsberg, on the account and at the risk of his Danish majesty: the ore is surprisingly rich, but interrupted in such a manner, that the vein is often lost. Many masses of pure silver have been found; and, among the rest, one piece weighing 560 pounds, preserved in the royal museum at Copenhagen. Such is the richness of these mines, that the annual produce amounts in value to a ton and a half in gold. About 5000 people are daily employed, and earn their subsistence in those stupendous works. Other silver mines are prosecuted at Jarlsberg, but not to the same advantage; and here the ore is mixed with lead and copper. In many parts of this country copper mines have been discovered; but the principal, and perhaps the richest in all Europe, is at Roraas, about 100 English miles from Drontheim. This work yields annually about 1100 ship pounds of pure copper: the founderies belonging to it consume yearly about 14,000 lasts of coal, and 500 fathoms of wood. The next in importance is the copper work at Lykken, about 20 miles from Drontheim. A third mine is carried on at Indset or Quickne, at the distance of 30 miles from the same place; and here they precipitate the copper from its menstruum by means of iron. There is a fourth copper work at Silboe, about 30 miles distant from Drontheim, though the least considerable of the four. Other copper mines of less note are worked in different parts of the kingdom. Iron is still in great plenty, and was the first metal wrought in this country. Many hundred thousand quintels are annually exported, chiefly in bars, and part of it in stoves, pots, kettles, and cannon: the national profit arising from this metal is estimated at 300,000 rix-dollars. There is a species called moor-iron, found in large lumps among the morasses: of this the peasants make their own domestic tools and utensils, such as knives, scythes, and axes. The lead found mixed in the silver ore is an article of small importance in Norway; yet some mines of this metal have been lately opened in the district of Soloer, by the proprietors of the copper work at Oudal.

A vitriol work has been begun near Kongsberg: the mines yield great plenty of sulphur; which, however, the Norwegians will not take the trouble to melt and depurate, because immense quantities are found at a cheaper rate in the island of Iceland.

Alum is found between the slate flakes near Christiana in such plenty, that works have been set up for refining this mineral, though they have not yet brought it to any degree of transparency. His Danish majesty has established salt-works in the peninsula of Valoe, about six English miles from Tonsberg, where this mineral is extracted in large quantities from the sea water.

Besides, the animals common to other countries, Norway is said to contain many of an uncommon kind; such as the kraken, mermaid, sea-serpent, &c.

The Norwegians are generally well formed, tall, sturdy, and robust, brave, hardy, honest, hospitable, and ingenious; yet savage, rash, quarrelsome, and litigious. The same character will nearly suit the inhabitants of every mountainous country in the northern climates. Their women are well shaped, tall, comely, remarkably fair and obliging.

The nobility of Norway have been chiefly removed by the kings of Denmark, in order to prevent faction and opposition to the court, or are long ago degenerated into the rank of peasants: some families, however, have been lately raised to that dignity.

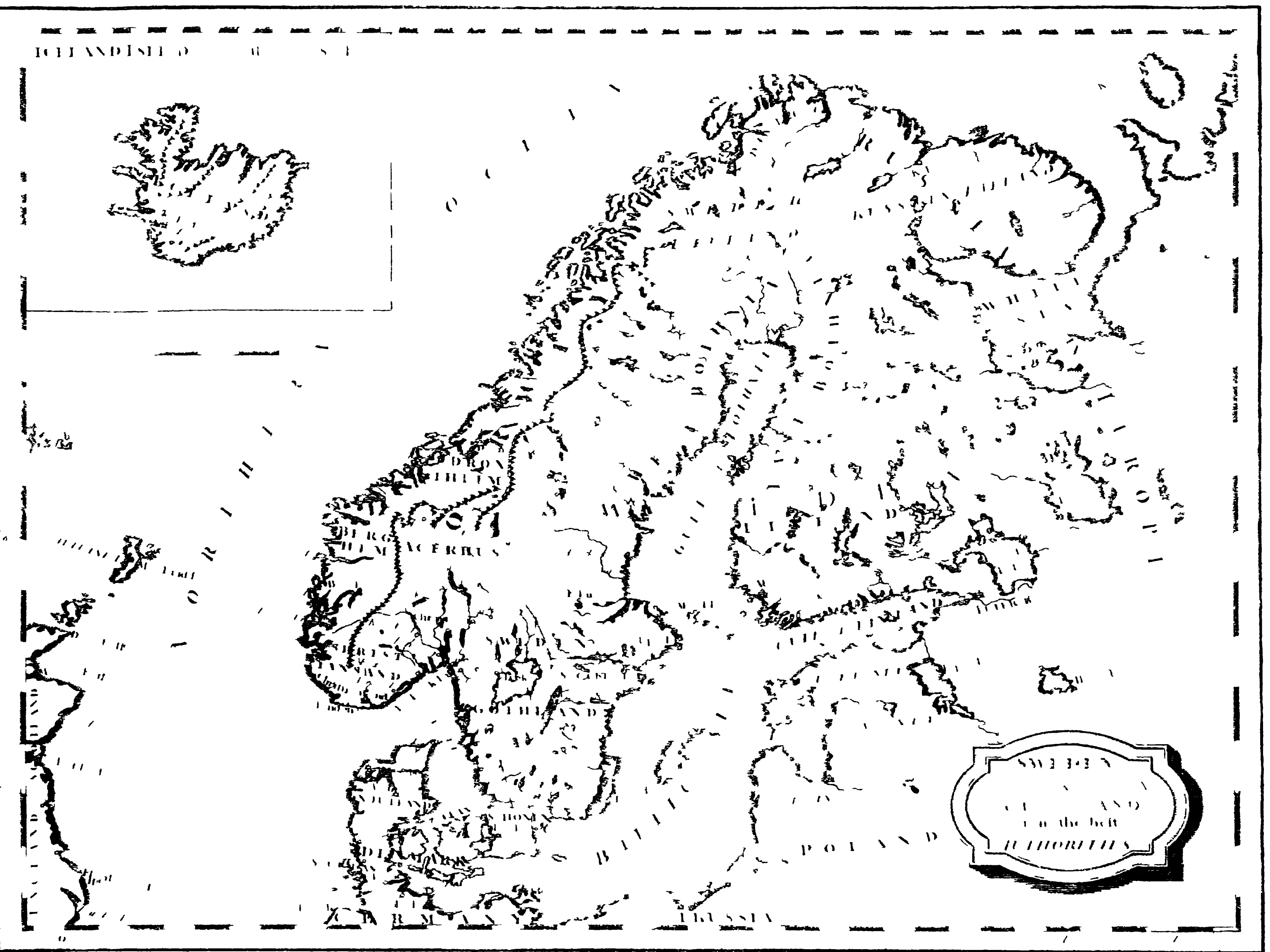
Every freeholder in Norway enjoys the right of primogeniture and power of redemption; and it is very usual to see a peasant inhabiting the same house which has been possessed 400 years by his ancestors. The odelsgads, or freehold, cannot be alienated, by sale or otherwise, from the right heir, called odels-mand: if he is not able to redeem the estate, he declares his incapacity every 10th year at the sessions; and if he, or his heirs to the third generation, should acquire wealth enough for that purpose, the possessor pro tempore must resign his possession.

The mountaineers acquire surprising strength and dexterity by hard living, cold, laborious exercise, climbing rocks, skaiting on the snow, and handling arms, which they carry from their youth to defend themselves against the wild beasts of the forests. Those who dwell in the maritime parts of Norway exercise the employments of fishing and navigation, and become very expert mariners.

The peasants of Norway never employ any handicraftsmen for necessaries for themselves and families, they are their own hatters, shoemakers, taylors, tanners, weavers, carpenters, smiths, and joiners; they are even expert at ship-building; and some of them make excellent violins. But their general turn is carving in wood, which they execute in a surprising manner, with a common knife, of their own forging. They are taught in their youth to wrestle, ride, swim, skaite, climb, shoot, and forge iron. Their amusements consist in making verses, blowing the horn, or playing upon a kind of guitar, and the violin: this last kind of music they perform even at funerals. The Norwegians have evinced their valour and fidelity in a thousand different instances. The country was always distracted by intestine quarrels which raged from generation to generation. Even the farmers stand upon their punctilio, and challenge one another to single combat with their knives. On such occasions they hook themselves together by their belts, and fight till one of them is killed or mortally wounded. At weddings and public feasts they drink to intoxication, quarrel, fight, and murder generally ensues. The very common people are likewise passionate, ambitious of glory and inde-

pendence, and vain of their pedigree. The nobility and merchants of Norway fare sumptuously; but the peasant lives with the utmost temperance and frugality, except at festivals: his common bread is made of oatmeal, rolled into broad thin cakes, like those used in Scotland. In time of scarcity, they boil, dry, and grind the bark of the fir-tree into a kind of flour, which they mix with oatmeal; the bark of the elm-tree is used in the same manner. In those parts where a fishery is carried on, they knead the roes of cod with their oatmeal. Of these last, mixed with barley-meal, they make hasty-pudding and soup, enriched with a pickled herring or salted mackarel. Fresh fish they have in plenty on the sea-coast. They hunt and eat grouse, partridge, hare, red-deer, and rein-deer. They kill cows, sheep, and goats for their winter stock: these they pickle, or smoke, or dry for use. They make cheese of their milk, and a liquor called syre of their sour whey: this they commonly drink mixed with water; but they provide a store of strong ale for Christmas, weddings, christenings, and other entertainments. From their temperance and exercise, joined to the purity and elasticity of their air, they enjoy good health, and often attain to a surprising degree of longevity. Nothing is more common than to see a hearty Norwegian turned of 100. In the year 1733, four couples danced before his Danish majesty a Frederickshall: their ages, when joined, exceeded 800 years. Nevertheless, the Norwegians are subject to various diseases; such as the scab, the leprosy, the scurvy, the catarrh, the rheumatism, gout, and epilepsy. The dress of the Norway peasants consists of a wide loose jacket, made of coarse cloth, with waistcoat and breeches of the same. Their heads are covered with flapped hats, or caps ornamented with ribbons. They wear shoes without outer soles, and in the winter leathern buskins. They have likewise snow-shoes and long skaites, with which they travel at a great pace either on the land or ice. There is a corps of soldiers, thus accoutred, who can outmatch the swiftest horses. The Norwegian peasants never wear a neck-cloth, except on extraordinary occasions: he opens his neck and breast to the weather, and lets the snow beat into his bosom. His body is girt round with a broad leathern belt, adorned with brass plates, from which depends a brass chain, that sustains a large knife, gimblet, and other tackle. The women are dressed in close-laced jackets, having leathern girdles decorated with ornaments of silver. They likewise wear silver chains round their necks, to the ends of which are fixed gilt medals. Their caps and handkerchiefs are almost covered with small plates of silver, brass, and tin, large rings, and buttons. A maiden bride appears with her hair plaited, and, together with her clothes, hung full of such gingling trinkets.

The churches, public edifices, and many private houses in Norway, are built of stone; but the people in general live in wooden houses, made of the trunks of fir and pine tree, laid upon each other, and joined by mortises at the corners. These are counted more dry, warm, and healthy, than stone or brick buildings. In the whole diocese of Bergen, one hardly sees a farm-house with a chimney or window: they are generally lighted by a square hole in the top of the house, which lets in the light, and lets out the smoke. In summer this hole is left quite open: in the winter, it is covered with what they call a sian; that is, the membrane of some animal, stretched upon a wooden frame, that fits the hole, and transmits the rays of light. It is fixed or removed with a


SWEDEN
AND
from the best
AUTHORITIES
POLAND
PRUSSIA
GERMANY
GOTHLAND
DRONTHEIM
BERGEN
AGGERHUUS

long pole occasionally. Every person that enters the house upon business or courtship, takes hold of this pole, according to antient custom. The cieling is about eight feet high in the middle, and being arched like a cupola, the smoke of the fire underneath rolls about until it finds a vent at the hole, which is called liur. Under this opening stands a thick table with benches, and an high seat at the upper end for the master of the family: he has likewise a small cupboard for his own use, in which he locks up his most valuable effects. The boards of the roof are coated with the bark of birch-trees, which is counted incorruptible; this again is covered with turf, which yields a good crop of grass for goats and sheep, and is often mowed as hay by the farmer.

The Norwegians carry on a considerable trade with foreign nations. The duty on the produce of their own country exported, amounts to 100,000 rix-dollars. These commodities are copper, wrought and unwrought; iron, cast into cannon, stoves, and pots, or forged into bars; lead in small quantities; masts, timber, deal-boards, planks, marble, mill-stones, herring, cod, ling, salmon, lobsters, flounders, cow-hides, goat-skins, seal-skins, the furs of bears, wolves, foxes, beavers, ermines, martens, &c. down, feathers, butter, tallow, train oil, tar, juniper, and other sorts of berries, and nuts; salt, alum, glass, vitriol, and pot-ashes. All other commodities and articles of luxury the Norwegians import from different nations. The nature of the ground does not admit of much improvement in agriculture; nevertheless, the farmers are not deficient in industry and skill to drain marshes, and render the ground arable and fit for pasture. Many are employed in grazing and breeding cattle: but a much greater number are engaged in felling wood, floating timber, burning charcoal, and extracting tar from the roots of the trees which have been cut down; in the silver, copper, and iron mines; in the navigation and fishery. A considerable number of people earn a comfortable livelihood by hunting, shooting, and bird-catching. Every individual is at liberty to pursue the game, especially in the mountains and commons; Therefore every peasant is expert in the use of fire-arms; and there are excellent marksmen among the mountains, who make use of the bow to kill those animals, whose skins, being valuable, would be damaged by the shot of fire-arms.

Norway can produce above 14,000 excellent seamen. The army of this country amounts to 30,000 effective men; and the annual revenue exceeds 800,000 rix-dollars.

SWEDEN.

The face of Sweden is pretty similar to those of its neighbouring countries; only it has the advantage of navigable rivers.

The same may be said with regard to its climate, soil, &c. Summer bursts forth from winter: and vegetation is more speedy than in southern climates. Stoves and warm furs mitigate the cold of winter, which is so intense, that the noses and extremities of the inhabitants are sometimes mortified. The Swedes, since the days of Charles XII. have been at incredible pains to correct the native barrenness of their country, by erecting colleges of agriculture, and in some places with great success. The soil is much the

same with that of Denmark and some parts of Norway, generally very bad, but in some valleys surprisingly fertile. The Swedes, till of late years, had not industry sufficient to remedy the one, nor improve the other. The peasants now follow the agriculture of France and England; and some late accounts say, that they rear almost as much grain as maintains the natives. Gothland produces wheat, rye, barley, oats, pease, and beans: and, in case of deficiency, the people are supplied from Livonia and the Baltic provinces. In summer the fields are verdant, and covered with flowers; and produce strawberries, raspberries, currants, and other small fruits. The common people know, as yet, little of the cultivation of apricots, peaches, nectarines, pine-apples, and the like high-flavoured fruits: but melons are brought to great perfection in dry seasons.

Sweden produces crystals, amethysts, topazes, porphyry, lapis lazuli, agate, cornelian, marble, and other fossils. The chief wealth of the country, however, arises from her mines of silver, copper, lead, and iron. The last mentioned metal employs no fewer than 450 forges, hammering-mills, and smelting houses. A kind of gold mine has likewise been discovered in Sweden; but so inconsiderable, that from the year 1741 to 1747, it produced only 2398 gold ducats, each valued at nine and fourpence sterling. The first gallery of one silver mine is 100 fathoms below the surface of the earth, the roof is supported by prodigious oaken beams, and from thence the miners descend about 40 fathoms to the lowest vein. This mine is said to produce 20,000 crowns a-year. The product of the copper mines is uncertain; but the whole is loaded with vast taxes and reductions to the government, which has no other resources for the exigences of state. These subterraneous mansions are astonishingly spacious, and at the same time commodious for their inhabitants, so that they seem to form a hidden world.

The waterfalls in Sweden afford excellent conveniency for turning mills for forges; and for some years the exports of iron from Sweden brought in 300,000*l.* sterling. Dr. Busching thinks that they constituted two-thirds of the national revenue. It must, however, be observed, that the extortions of the Swedish government, and the importation of American bar-iron into Europe, and some other causes, have greatly diminished this manufacture in Sweden; so that the Swedes very soon must apply themselves to other branches of trade and improvements, especially in agriculture.

The animals differ very little from those of Norway and Denmark, only the Swedish horses are known to be more serviceable in war than the German. The fishes found in the rivers and lakes of Sweden are the same with those in other northern countries, and taken in such quantities, that their pikes, particularly, are salted and pickled for exportation. The train-oil of the seals, taken in the gulf of Finland, is a considerable article of exportation.

Sweden is divided into seven provinces——Gothland, Sweden Proper, Finland, Lapland, Livonia, Ingria, and the Baltic isles. Of these Lapland has been already described, and Livonia and Ingria are now subject to Russia, so that only four of the number remain to be examined, Gothland, Sweden, Finland, and the Isles.

Of Sweden, the following are the subdivisions——Uplandia, Westmania, Gestricia, Helsingia, Sudermania, Neritia, Dalecarlia, Medelpedia, and Jemptia.

Of Gothland,——East Gothland, Smaland, Dalia, Bleking, West Gothland, Wermeland, Schonen, Halland.

Of Finland---East Bothnia, Savolaxia, Travastia, Cajania, Nyland, Finland proper.

The Swedish isles are,------Gothland, Oeland, Aland, Rugen.

The provinces of West Gothland, Nericia, Gestricia, and Dacearlia, with the northern part of Upland, and the southern part of Sudermania, are only hideous rocks and immense deserts, with gloomy woods of fir-trees of 30 or 40 leagues in length. In the province of Halland, for the space of eight miles, the distance between the villages Morop and Ossa, the traveller cannot perceive one tree, the bramble juniper alone growing upon the little moss that covers the rocks. The villages are not less wretched than the country in which they are situated no habitations are seen but those of the peasants, who are obliged to furnish houses for travellers, and no human being is met with but a few miserable shepherds, whose sheep straggle among the rocks, in search of the scanty moss which is their only food. Westmannia, the northern part of Sudermania, the southern part of Upland, and East Gothland, are excepted from this general character of desolation, Bleking is accounted not deficient in fertility ; but Scania is the most valuable of the provinces of Sweden. Its gentle hills and luxuriant valleys produce every sort of grain, and afford pasture to numerous herds of cattle ; while the many well built houses prove the riches and activity of the inhabitants.

Certain towns in Sweden, 24 in number, are called staple towns, where the merchants are allowed to import and export commodities in their own ships. Those towns which have no foreign commerce, though lying near the sea, are called land towns. A third kind are called mine towns, as belonging to the mine districts.

Stockholm is a staple town, and the capital of the kingdom : it stands upon seven rocky islands, besides two peninsulas, and is built upon piles. It, strongly impresses a stranger with its singular and romantic scenery. A variety of contrasted and enchanting views formed by numberless rocks of granite, rising boldly above the surface of the water, partly bare and craggy, partly dotted with houses, or feathered with wood. The harbour, which is spacious and convenient though difficult of access, is an inlet of the Baltic ; the water is clear as crystal, and of such depth, that ships of the largest burden can approach the quay, which is of considerable breadth, and lined with spacious buildings and ware-houses. At the extremity of the harbour several streets rise one above another in the form of an amphitheatre ; and the palace, a magnificent building, crowns the summit, Towards the sea about two or three miles distant from the town, the harbour is contracted to a narrow strait, and winding among high rocks disappears from the sight. The prospect is terminated by distant hills overspread with forests

Excepting in the suburbs, where the houses are of wood, painted red, the generality of the buildings are of stone or of brick stuccoed white. The royal palace, which stands in the centre of Stockholm, and upon the highest spot of ground, was begun by Charles XI. It is a large quadrangular stone edifice, and the stile of architecture is both elegant and magnificent.

The number of housekeepers who pay taxes are 60,00. This city is furnished with

all the exterior marks of magnificence, and buildings for manufactures and commerce that are common to other European cities; particularly a national bank, the capital of which is 450,000*l* sterling.

The principal university of Sweden is that of Upsal, instituted near 400 years ago, and patronized by successive monarchs, particularly by Gustavus Adolphus and his daughter Christiana. There are near 1500 students in this university; but for the most part they are extremely indigent, and lodge five or six together, in very poor hovels. The professors in different branches of literature are about 22; of whom the principal are those of divinity, eloquence, botany, anatomy, chemistry, natural philosophy, astronomy and agriculture. Their salaries are from 70 to 100 pounds per annum. This university, justly called by Stillingfleet, the great and unrivalled school of natural history, is certainly the first seminary of the north.

There is another university at Abo, in Finland, but not so well endowed, nor so flourishing; and there was a third at Lunden, in Schonen, which is now fallen into decay.

DENMARK.

Denmark consists of the Peninsula of Jutland and of the islands of Zealand, Furer, Falsterland, Langland, Femeren, Alsen, Mona, and Bornholm at the entrance of the Baltic

Jutland is divided into North Jutland which is usually called Jutland, and south Jutland or Slesmik. Jutland produces an abundance of all sorts of grain and pasturage; and is a magazine for Norway on all occasions. A great number of small cattle are bred in this province, and afterwards exported to Holstein, to be fed for the service of Hamburgh, Lubec, and Amsterdam.

Jutland is every where interspersed with hills; and on the east side has fine woods of oak, fir, beech, birch, and other trees; but the west side being less woody, the inhabitants are obliged to use turf and heath for fuel. Zealand is, for the most part, a sandy soil, but rather fertile in grain and pasturage, and agreeably variegated with woods and lakes. The climate is more temperate here, on account of the vapours from the surrounding sea, than it is in many southern parts of Europe. In all the northern parts of Denmark, the winters are very severe, so that the inhabitants often pass over arms of the sea upon the ice; and during the winter all the harbours are frozen up.

Copenhagen, the capital of the kingdom of Denmark, is situated on the eastern shore of the island of Zealand, upon a fine bay of the Baltic sea, not far from the strait called the Sound. E. Long. 13° N. Lat 55° 30.

The precise date of the foundation of this city is disputed; but the most probable account is, that it took its rise from a castle built on the spot in the year 1268, as a protection against the pirates which at that time swarmed in the Baltic. The conveniency of the situation, and the security afforded by the castle, soon induced a number of the inhabitants of Zealand to resort thither; but it was not distinguished by the royal resi-

dence until 1443, during the reign of Christopher of Bavaria; since which period it has been gradually enlarged and beautified, and is become the capital of Denmark.

Copenhagen is the best built city of the north; for although Petersburgh excels it in superb edifices, yet, as Copenhagen contains no wooden houses, it does not display that striking contrast of meanness and magnificence, but in general exhibits a more equable and uniform appearance. The town is surrounded towards the land with regular ramparts and bastions, a broad ditch full of water, and a few outworks: its circumference measures between four and five miles. The streets are well paved, with a footway on each side, but too narrow and inconvenient for general use. The greatest part of the buildings are of brick; and a few of freestone brought from Germany. The houses of the nobility are in general splendid, and constructed in the Italian stile of architecture: the palace, which was erected by Christian VI. is a large pile of building; the front is of stone, and the wings of brick stuccoed; the suite of apartments is princely; but the external appearance is more grand than elegant.

The busy spirit of commerce is visible in this city, which contains about 80,000 inhabitants. The haven is always crowded with merchant ships; and the streets are interspersed by broad canals, which bring the merchandize close to the warehouses that line the quays. This city owes its principal beauty to a dreadful fire in 1728, that destroyed five churches and 67 streets, which have been since rebuilt in the modern stile.

The new part of the town, raised by the late king Frederic V. is extremely beautiful, scarcely inferior to Bath. It consists of an octagon, containing four uniform and elegant buildings of hewn stone, and of four broad streets leading to it in opposite directions. In the middle of the area stands an equestrian statue of Frederic V. in bronze, as big as life, which cost 80,000*l.* The Royal Museum, or Cabinet of Rarities, merits the attention of travellers. This collection which was begun by Frederic III. is deposited in eight apartments, and ranged in the following order: animals, shells, minerals, paintings, antiquities, medals, dresses, arms, and implements of the Laplanders.

Part of Copenhagen, which is called Christian-shafen, is built upon the isle of Amak, which generally attracts the curiosity of foreigners; from this, to which the main city is joined by a bridge, the markets are supplied with fowl, beef, mutton, venison, corn, and culinary vegetables, which are produced here in the greatest abundance.

Jagensburgh is a park which contains a royal seat called the hermitage, remarkable for the disposition of the apartments and the quaintness of its furniture; particularly a machine which conveys the dishes to and from the kings table in the second story. The chief ecclesiastical building in Denmark is the cathedral of Roshild, where the kings and queens of Denmark were formerly buried, and their monuments still remain. Joining to this cathedral, by a covered passage is a royal palace built in 1733.

Elsineur is well built, contains 5000 inhabitants; and with respect to commerce, is exceeded only by Copenhagen. It is strongly fortified on the land side, and towards

the sc is defended by a strong fort, containing several batteries of long cannon. Here all vessels pay a toll, and in passing lower their top sails.

GERMANY.

Germany, as it subsisted before the late war, is bounded on the north by the Baltic sea, Denmark, and the German Ocean: on the south by Italy and the Swiss; on the east by Prussia, Hungary, and Poland; and on the west by the Low Countries, Lorraine, and Franche Comté: so that it comprehends the Palatinate, Cologne, Triers, and Liege, which formerly belonged to the Gauls, and is dismembered of Friezland, Groningen, and Overyssel, which are now incorporated with the Low Countries.

Germany lies between 45° 4' and 54° 40' N. Lat. and between 23° 30' and 36° 52 East Longitude. Extending from north to south 720 miles, and 655 from east to west.

The principal rivers of Germany, are the Danube, the Rhine, the Mayne, the Elbe, the Oder, and the Weser.

The Danube, or Donau, formerly called Ister, rises in Suabia, in the territory of Furstenburg, runs eastward through Germany, Hungary, and Turkey; receiving above 120 rivers in its course, and discharges itself by several outlets into the Black Sea. It begins to be navigable for boats at Ulm, and receives several large rivers as it passes along. It is so deep between Buda and Belgrade, that the Turks and Christians have had men of war upon it; yet it is not navigable to the Black Sea on account of the cataracts.

The Rhine derives its origin in the country of the Grisons, from two springs; at the town of Coire it becomes navigable; below Rheineck it falls into the lake Constance; near Schaff-hausen it forms a cascade, and then receives the Thur and Aar: at Manheim it is joined by the navigable river Neckar, and by the Mayne at Mentz: at Oberlahustein it receives the Lahn, or Lohn; at Coblentz, the Mosel; a Duisberg, the Roer; and at Wesel, the Lippe; at Schenkenschanze it enters the United Provinces, and is divided into two branches: one of these called Waal, joins the Maese; another, which formerly discharged itself into the North Sea, is now become a stagnant water, and ends near the city of Leyden.

The Mayne has a double source; one in the margraviate of Bayreuth, the other in the Fichtelse, on the Fichtelberg, in Franconia. These streams going below Culmbach, from the Mayne, which in its course receives the Regniz, Saal, Touber, and Kenzig, and afterwards runs into the Rhine at Mentz.

The Elbe rises in Bohemia, receives the Moldau and the Eger; entering the circle of Upper Saxony, it is joined by the Mulde under the Saal; then running through the circle of lower Saxony, it is augmented by the Havel and the Ilmenau. Dividing itself into many branches, in the neighbourhood of Hamburgh, it forms a number of islands. Below Gluckstadt it receives the Stor; and near Bronsbuttle loses itself in the German Ocean.

The Oder rises in Moravia, traverses Silesia, waters the marquisate of Brandenburg, enters Pomerania, pours itself into the Great Haf, and out of that into the Baltic.

The Weser is formed by the rivers Werra and Fulda, the first rising in Fulda, and the other in Franconia; these uniting at Munden, take the name of Weser, which after it has received the Alley, Verden, and the Wumme in Bremen, disembogues itself into the Northern or German Ocean.

Since the reign of Charlemagne, this country is divided into High and Low Germany; the first towards the south, comprehending the Palatinate of the Rhine, Franconia, Suabia, Bavaria, Bohemia, Moravia, Austria, Carinthia, Carniola, Stiria, Tyrol, the Swiss, and the Grisons, while the provinces of Lower Germany, towards the north, consist of the Low Country of the Rhine, Triers Cologne, Mentz, Westphalia, Hesse, Brunswick, Misnia, Lusatia, High Saxony upon the Elbe, Lower Saxony upon the Elbe, Mecklenburg, Luneburg, Brandenburg, Magdeburg, and Pomerania.

Germany is likewise distinguished by those countries that border upon the Rhine, the Danube, the Oder, the Elbe, and the Weser; and, thirdly, it is divided into certain generalities, or large provinces, called circles, comprehending the princes, prelates, counts, and cities which, on account of their nearness to each other, may conveniently assemble about their common affairs. Under this appellation, the members of the empire were divided by Maximilian I into six parts, namely, Franconia, Bavaria, Suabia, the circle of the Rhine, Westphalia, and Lower Saxony; he afterwards added those of Austria, Burgundy, the Lower Rhine, and High Saxony; so that the number was augmented to ten, and confirmed in the reign of Charles V.

Each circle is provided with directors and a colonel; the first being invested with the power of convoking the general assembly of the states belonging to the circle, and of regulating its public affairs, while the colonel is entrusted with the command of the soldiers, and the care of the artillery and munitions of war.

As all the members must contribute for the occasions of the empire, each circle is taxed for the support of the troops and other public necessities, at the rate of so many horse and foot, or a certain monthly sum, distinguished by the name of Roman months; an appellation derived from the first use of that tax, which was levied for the support of 20,000 foot and 4000 horse to accompany the emperor in his journey to Rome, and those who could not furnish soldiers, paid a monthly equivalent in money.

The circle of Austria, of which the emperor, as archduke, is director, comprehends all the provinces depending upon the empire, which are possessed by the house of Austria, for the kingdoms of Hungary and Bohemia, together with several other states, which they possess independent of the empire, are not comprised in this circle.

The circle of Bavaria, so called because that duchy constitutes the principal part of it, includes several other independent states; the elector, as duke of Bavaria, and the archbishop of Saltzburgh being the directors.

The circle of Suabia, which, more than any other, abounds with imperial towns, has for directors, the bishop of Constance and the duke of Wirtemburg.

Those of the circle of Franconia, denominated from the province of that name,

are the bishop of Bamberg and the margrave of Bareith or Culmbach, who possesses the burgraviate of Nuremburg.

The circle of Upper Saxony is under the sole directorship of the elector; but as for that of Low Saxony, which is one of the most considerable circles in Germany, the king of Sweden, as duke of Bremen, and the elector of Brandenburg, as duke of Magdeburg, are alternately con-directors with the eldest of the dukes of Brunswick and Lunenburgh.

The circle of Westphalia produces such plenty of men and horses fit for service, that in time of war, the states of this province chose to furnish their proportion rather in those than in money: their directors being the elector of Brandenburg and duke of Newbourg, with the bishop of Munster.

The circle of the Lower Rhine, which is also called the circle of the four electors, because it includes the three ecclesiastic electors and the Palatinate, situated upon the Rhine, has, for directors, the electors of Mentz and Palatinate; while those of the Higher or Upper Rhine, are the bishop of Worms and elector Palatine, as having succeeded to the duchy of Simmeren, though the first pretends to be sole director.

As for the circle of Burgundy, which takes its name from that province, now dismembered from the empire, and belonging to the king of France; it was formerly under the directorship and sovereignty of the king of Spain, and comprehended not only High Burgundy or Franche Comté, but likewise the 17 provinces of the Low Countries, which, in the reign of Charles V. were received as members of the empire, independent, indeed, of the imperial chamber with respect to justice, but subject to pay as much as is levied from two electors, in case of war against the Turks: however, this contribution was never raised, and is now entirely omitted in the rolls of the contingencies of the empire

Exclusive of this circle, therefore, the contributions for a Roman month, paid by all the others, amount to 2419 horsemen, and 12,400 foot soldiers; or, in money, to 75,840 florins; and this tax is augmented double, triple, and quadruple, according to the number of troops to be raised, but always in proportion to the established rates in the book of matriculation.

The empire of Germany is a body, of which the emperor is the head, and the states are the members. These states are divided into three classes; namely, the college of electors, the college of ecclesiastical and secular princes, and that of the imperial towns, which are admitted into the diets or general assemblies.

Charlemagne and his successors possessed the empire by hereditary right; but that race being extinct, the princes assembled, elected Conrad, and afterwards Henry the Fowler, who was succeeded by Otho, surnamed the Great, after whom the emperors enjoyed their dignities by succession, though the consent of the people was necessary, touching the capacity of him upon whom the empire devolved. This custom continued till the reign of Henry IV. who gave occasion to the constitution which regulates the elections of the emperors, and by virtue of which he himself was afterwards deposed.

The confusion which necessarily attended the election, on account of the great number of

princes, states, and sovereigns, who had a right to vote, induced them to transfer that power to seven chiefs, whom they denominated electors, and who were afterwards confirmed as such in the reign of Charles IV. by an ordinance, called the Golden Bull, which regulates the form of the election, and power of those electors, which is now hereditarily annexed to certain states of the empire.

Before Charlemagne, and a long time after his reign, the empire was altogether monarchial, through the whole extent of its dominions, both in Germany and Italy: but since Frederic II. the electors and princes have insensibly acquired certain rights, to which they did not formerly pretend; so that the government is become partly monarchial, and partly aristocratical; for there are certain prerogatives, which the emperor enjoys by his sole power and imperial authority; while, in other affairs, he must have recourse to the voice, and solicit the consent, of the princes and electors, and even of all the states of the empire, in consequence of a solemn capitulation, which he signs at his election.

He assumes all the marks of the antient emperors of the West, with the titles of Semper Augustus Cæsar, and Sacred Majesty. His crown is closed above, and surmounted with a globe, which is the symbol of universal monarchy; and the Christian princes allow him the first rank, on account of his dignity. He convokes and dismisses the diets and other imperial assemblies; having a right to authorise their resolutions, which are afterwards published and executed in his name: he confirms the alliances and treaties which have been made by their predecessors for the welfare of the empire: he alone enjoys the benefit of what is called the first prayers, that is, the right of filling up the first canonship, or any other dignity, in the cathedral and collegiate churches, as well in the abbeys of the empire, that shall be vacant after his coronation; he creates and confers all the other secular dignities, such as king, prince, archduke, duke, marquis, landgrave, count, and baron. To him alone belongs the power of bestowing the great fiefs of the empire, the investiture of which he gives to the ecclesiastical princes by the sceptre, and to the secular by the standard or sword; he receives the oath of allegiance from the electors, princes, and all the members of the empire, and all the dominions which devolve to the empire, by forfeiture or otherwise, are entirely at his disposal; he grants pardons and remissions; institutes and confirms universities and academies, and possesses other prerogatives, which are marks of sovereignty. But he is obliged to consult the electors before he can alienate or mortgage the effects of the empire, grant the privilege of coining money, or confiscate the estates of rebels. The general consent of all the estates is necessary in regulating the affairs of religion, in making or annulling laws, fixing the value of money, proclaiming war within or without the empire, imposing subsidies or general contributions, raising troops, building new fortresses, or putting garrisons in the old, and in making treaties and alliances. Nevertheless, if the affair is pressing, no more than the consent of the electors is required; and in truces or cessation of arms, the authority of the emperor is sufficient. To these restrictions he subjects himself, by a capitulation made at his election, which is a contract between him and the electors and princes, introduced since the reign of Charles V. before which time, the ordinary constitutions of the empire served in lieu of

this capitulation. In the absence of the emperor, the sovereign power devolves to the King of the Romans, as perpetual vicar of the empire: but in default of the emperor, and king of the Romans, the authority is transferred to the two vicars of the empire in Germany, namely, the elector of Bavaria, the palatine of the Rhine (for the right is contested) and the elector of Saxony, who each, in his own extent of principality, exercises the same functions in all things, except the grand fiefs, called the fiefs of the sceptre and the sword, which can be bestowed by none but the emperor.

The domain possessed as emperor, and the revenues which he draws from the empire for the support of his imperial dignity, have been formerly very considerable, but at present are much reduced, as to be altogether insufficient to maintain the post of the empire, so far are they from being able to support his dignity, or contribute to the subsistence of his troops. There is not one town belonging to him as emperor: and in case the Germans should elect a prince destitute of hereditary dominions, the city of Bamberg would be assigned to him as the place of his habitation and the bishop in that case obliged to retire to Villac. The emperor's revenue consist in aids, which are called Roman months, paid by the states and members of the empire, in some other subsidies from the imperial towns, which amount to about 10,000 livres a-year, in taxes of the chancery, and exactions from the Jews, distinguished by the name of Offering money.

Besides the Aulic council, which shall afterwards be mentioned, there are three others established for dispatching the affairs of the empire. The first is the council of state, composed of a president and 24 counsellors, who are princes or counts of the empire and other considerable noblemen, and ten secretaries for expediting letters and decrees. The second is that of the finances, composed of two presidents, one director, with 12 assessors, and six secretaries. The third is the imperial council of war, consisting of two presidents, who are generals, and seven counsellors, who are camp marshals, major-generals, and colonels, with an auditor-general, registers, and secretaries. The title of the king of the Romans, as it is at present understood, was altogether unknown in the time of the first emperors, who were actually sovereign princes of the city of Rome.

Charlemagne having destined the succession of the empire to his eldest son bestowed upon him the quality of king of Italy, a title which Louis the Debonair and Lotharius I. likewise conferred upon their presumptive heirs; an appellation equivalent to that of Cæsar among the antient emperors, and to that of king of the Romans in its present signification. This last title began to be in use about the tenth century, when it was supposed that the pope had the sole right of creating the emperor. Accordingly many emperors contented themselves with this appellation until they were actually crowned at Rome, and in this sense we must understand the second chapter of the Golden bull, which, speaking of the election of a king of the Romans, mentions him only as a successor in the empire, who could not be qualified as emperor till after his coronation by the pope.

At present the King of the Romans is he who is chosen by the princes electors, during the emperor's life to conduct the affairs of Germany in the emperor's absence, as

vicar-general of the empire, and to succeed him on the imperial throne at his death, without any other election or confirmation. This is an expedient used by the emperor when he wants to see the succession secured during his own life, or is no longer in a condition to manage the reins of government. The king of the Romans is not crowned with an imperial, but with an open crown; nor does he receive the oath of allegiance till after the death of the emperor; nor is he honoured with the epithet of Semper Augustus; nor does he bear the spread eagle with two heads; nor does he exercise any power in the empire, while the emperor is there in person; but, in his absence, commands by virtue of his dignity.

We have already observed that there are three colleges in the empire, a distinction which was established in the diet of Francfort, in the year 1580. Of these, the chief is the electoral, which originally consisted of seven electors; an eighth was afterwards added, and is at present composed of nine, in each of whom are united the two qualities of prince of the empire and elector. As the first, he is sovereign in the extent of his own dominions, with certain restrictions, which render him dependent upon the emperor and empire. As elector, he has a right to elect the emperor and king of the Romans, and precedes all other princes of the empire, not excepting cardinals and kings. This college comprehends three archbishops and five secular princes; the first are those of Mentz, Triers, and Cologne, who, according to the golden bull, are great chancellors of the empire; the secular princes are, the king of Bohemia, great cup-bearer; the duke of Bavaria, great master of the palace; the duke of Saxony, great marshal; the margrave of Brandenburg, great chamberlain; and the count palatine of the Rhine, high treasurer. The number of electors was augmented by the emperor Leopold, who erected the house of Brunswick into a ninth electorate, under the title of elector of Hanover, on pretence of giving satisfaction to the protestants, who complained that their authority was diminished by the Palatine electorates passing into a catholic branch of that family. The secular electors have both an active and a passive voice, each having a right to chose and to be chosen emperor; whereas the ecclesiastic electors can chose, without having a right to be chosen. The three archbishops must have attained the age of 30 years, before they can obtain that dignity; but the secular elector is of age at 18. During his minority, his nearest relation is appointed as his tutor or administrator, and exercises the electoral dignity, maintaining the rank, and wearing the habit of an elector. We have already observed, that two of these electors are vicars general of the empire, which they govern upon the death or resignation of the emperor, when there is no king of the Romans. Each exercises a separate power in the provinces of his jurisdiction; except in the chamber of Spire, the acts of which are signed by the names of both, because there justice is administered by all the states of the empire. Each of these secular electors has a vicar, who performs his office in his absence; and these vicariaties are hereditary. The ecclesiastics acquire their electorates in the manner by which prelacies are obtained: but the seculars acquire it by collation or succession. Collation takes place in default of male issue, legitimate and laic, and is sanctioned by the emperor, who is obliged to complete the number of electors, and confer-

the vacant place upon a German prince. The succession subsists, conformable to the Salic law, according to the right of seniority, being independent of all transactions, testaments, and other cruel acts, which are used in other cases for changing the order of succession

The electors have the right of possessing salt-works, and all sorts of mines, in their own electorates; to coin gold and silver money; to levy the antient taxes; to acquire the greatest fiefs, in preference to all others, and to be invested gratis; to refuse compliance with any privilege contrary to their own; to exercise a superior and sovereign jurisdiction in their dominions; though the vassals of all the electors, except those of Saxony and Brandenburgh, have a right to appeal to the imperial chamber. But the most characterising distinction of the electors is their right of choosing and deposing the emperor.

The next college comprehends all the other princes; either secular, as dukes, margraves, landgraves, burgraves, counts, &c.; or ecclesiastic, such as archbishops, bishops, abbots, &c. that immediately hold of the empire. Those who compose this college, have the right of sitting in the diets or general assemblies, with a deliberative and decisive voice, and contribute to the necessities of the empire, according to the tax established by the matricular book, or register of the states. The archbishop of Saltzburg and the archduke of Austria are alternately directors of the college of the princes of the empire; and this alternative is not regulated by the different sittings, but by the different subjects that are proposed and discussed. Besides these princes, there is a number of counts in the empire, who hold of the empire alone, and are divided into four classes; namely, those of Wetteraw, Suabia, Franconia, and Westphalia, together with a great number of free noblesse, distinguished by that of Franconia, Suabia, and the Rhine. The princes of both orders hold immediately of the emperor and the empire, and generally receive their investiture by the sword, from the hand of the sovereign seated on his throne; though the counts and barons of the chamber of Spire are invested with the standard or ensign representing the arms of their respective countries. They have power to appoint judges for the administration of justice; which some of them exercise as sovereigns, while others are limited to certain sums, above which, all causes depending must be decided by appeal to the chamber of Spire. They are allowed to establish new laws, create magistrates, grant letters of grace, respite, safe-conduct, majority, and legitimation. They have the right to succeed to bastards, to raise and quarter soldiers, erect universities, coin money, make arms, and cast artillery; to increase the number of their fortresses, and secure them with garrisons; make alliances among themselves, as well as with strangers, for their common defence; and in a word, to reign in their own territories, as the emperor reigns in the empire.

The third college is that of the imperial towns, which, like the other two, assembles apart in order to deliberate upon the proposals that are made for the occasions of the empire; and the cities, which compose it, are called imperial, because they hold immediately of the emperor and empire. They, as well as the other colleges, have a right to sit in the diets with a deliberate and decisive voice. They regulate the form

of government in their own jurisdiction, creating magistrates and officers of justice, and enacting laws, regulations, and statutes, by their own proper authority. They have a right to coin money, to fortify their towns, to levy soldiers, and to exercise every act of sovereignty, which is exercised by the princes of the empire in their different principalities. Formerly the number of the imperial towns amounted to 84 or 85; but is at present reduced to 58, separated into two branches in the assemblies; namely, that of the Rhine, and that of Suabia. The first comprehends the cities of Cologne, Aix-la Chapelle, Lubeck, Worms, Spire, Frankfort upon the Maine, Wetzlar, Gellenhausen, Dortmond, Friedberg, &c. while Ratisbon, Augsburg, Nuremberg, Ulm, and 32 other cities, are comprehended in that of Suabia.

"The appellation of Hans, or Anse, which, in all probability, comes from the German word Anzee, signifying near the sea, is given to a confederacy of towns, that engaged in an alliance for the mutual support and improvement of commerce. About the year 1164, the city of Bremen formed the first scheme of this society, with several other sea-port towns in Lavonia; though the number that first entered into the association is uncertain. Be that as it will, it afterwards increased to such a point of importance, as to comprehend 80 principal trading towns; among which were many foreign places that desired admission into the confederacy. Accordingly, we see in the old list of Antwerp, Dort, Amsterdam, Rotterdam, Bruges, Ostend, Dunkirk, Calais, Rouen, St. Maloe, Bourdeaux, Bayonne, Marseilles, Barcelona, Seville, Cadiz, Lisbon, Leghorn, Messina, Naples, and London.

In the flourishing times of the society, they chose four towns, where they established free staples, or general factories, for the convenience of their shipping and the sale of their merchandize, for the trade was chiefly carried on by barter and exchange. These were London, in England: Bergen, in Norway; Novogorod, in Russia; and Bruges, in Flanders. This Anseatic alliance, which at first had no other aim than the security of commerce against pirates, and the mutual advantage of extending it among the towns concerned by peaceable and friendly communication, became strong enough to maintain an offensive war against Waldemar III. king of Denmark, whom they obliged to sue for peace, and cede to them, for a term of years, the isle of Schonen, in order to indemnify them for the expence of their equipment. They afterwards fitted out a powerful fleet against Eric X. and gave him great disturbance. In 1615, they obliged the duke of Brunswick to raise the siege of that town, which he had invested, and next year entered into a general alliance with the states of the United Provinces. In the same manner they often engaged in treaties with other princes and states, and particularly with different kings of France, who granted them several advantageous privileges in trade.

After the kings of France, Spain, Italy, and Denmark, had forbid their towns to continue members of this society, the Teutonic Hans restricted their alliance to Germany, or, at least, to the towns depending upon the empire, and distributed them under four metropolitans; namely, Lubeck, Cologne, Brunswick, and Dantzic. The first comprehended the towns of Hamburgh, Rostock, Wismar, Stralsund, Luneu-

burg, Stetin, Anclaim, Golnas, Gnepswald, Colberg, Stargard, Sotlpen, and Rugensbald. Under that of Cologne were Wesel, Emmeric, Drusburg, Osnaburg, Dortment, Soest, Herworden, Paderborn, Northausen, Nimeguin, Zutphen, Ruremonde, and several others of Westphalia and the Low Countries. The metropolitan of Brunswick included Bremen, Magdeburgh, Hildesheim, Goslar, Mindan, Erimbeck, and others: and in the division of Dantzic were all the Hans towns situated upon the Baltic, from the Vistula as far as Russia, comprehending Colm, Thorn, Elbing, Koningsberg, Riga, &c.

Lubeck is the chief of all the Hans towns, from a pre-eminence which it enjoys, not only on account of its central situation, but also of its privileges and power. It convokes the general assembly; is the depository of the money contributed to defray the common expence; preserves all the titles, acts, and archives of the alliance; uses its own seal to the letters sent in the name of the community to foreign princes and states, as well as to all their resolutions and treaties: from its citizens are generally chosen the ambassadors and deputies appointed by the society, and here the syndic of the alliances commonly resides.

In their assembly, the deputy of Lubeck, as president, sits by himself, the rest being seated on two benches to the right and left, and votes before all others. Their affairs are determined by a majority; nevertheless, when there is a great opposition, the question is generally thrown out. Their ordinary assemblies are held every three years, about Whitsuntide, and the extraordinary as often as the emergency of affairs requires.

The imperial diets are composed of these three colleges, which comprehend all the estates and immediate members of the empire. The diet is convoked by the emperor, after he has agreed with the electors upon the necessity of assembling it, and the place proper for the session. In this assembly, the emperor is seated upon a throne; the electors of Mentz, Bavaria, and Brandenburg, being on his right hand; those of Cologne, Saxony, and Palatine, upon his left; and the elector of Triers opposite to his person. The ecclesiastic princes are seated on benches to the right; the secular princes sit upon the left; and the deputies of the imperial towns occupy others that cross from the right to the left. The emperor's proposal being made in the general assembly, the three colleges deliberate apart upon the subject; then, assembling together in one place, communicate their sentiments, and concur in a resolution, which is sent to the emperor, with whose approbation it passes into a law, and is received as an imperial constitution.

There are two methods of administering justice in the empire; one is exercised in general, and the other in particular, tribunals. All the princes, states, and members of the empire, have a right to administer justice in their own fiefs; except in particular cases, where an appeal lies to the imperial chamber of Spire, or the Aulic council. In the particular jurisdictions, they follow the laws of the empire; which are the antient constitutions, the golden bull, the pacification of Passaw, the treaties of Westphalia, the Saxon law established by Charlemagne, and the Roman law established by the emperor Justinian, which is observed, in all places, where the other is not received. The general tribunals are those of the imperial chamber of Spire, and the Aulic council of the

emperor, which exercise an universal and sovereign jurisdiction over all the subjects of the empire. The first was heretofore ambulatory, and established at Augsburgh, by Frederic IV. It was afterwards held successively at Frankfort, Worms, Nuremberg, Ratisbon, and Eislengen, till Charles V fixed it at Spire. In consequence of the treaties of Westphalia, it ought to be composed of a catholic judge, and four presidents, named by the emperor, two of each religion, and 50 counsellors, 26 of which are catholics, and the rest protestants. The judge must be a prince, count, or baron; two of the presidents being of the sword, and two of the gown. The counsellors are named and presented in this manner; two catholics by the emperor, as many by each of the four catholic electors; two protestants by each of the three protestant electors; and the rest by each of the circles of the empire. This is the regulation according to the treaties of Westphalia; but the imperial chamber is at present reduced to a much smaller number of officers, being composed of the elector of Triers, who is judge as bishop of Spire, of one catholic and one protestant president, and eight catholic and seven protestant counsellors.

The Aulic council is composed of one catholic president, one vice-chancellor, presented by the elector of Mentz, and nine counsellors of each religion; who, with the president, are nominated by the emperor. They are divided into two benches; one of which is occupied by the nobles, and the other by the lawyers. They hold their assemblies near the person of the emperor, whence it is called Aulic, or the council of the imperial court.

Although the sentences of these councils are final, there are, nevertheless, some cases in which the parties may appeal to the emperor, and demand a revision of the process; particularly in those cases which regard duchies, principalities, counties, and other immediate fiefs of the empire. In both these tribunals, the emperor presides as sovereign judge, and when he is present, pronounces sentence, but in his absence, he who represents his person as judge, has a right to wear an imperial sceptre as a badge of his dignity.

In Germany are two sorts of nobility: one free and immediate, holding only of the emperor and empire; the other mediate, which, though owning the emperor as chief of the empire, is likewise subjected to the jurisdiction of another prince. This last, though not in possession of such liberties as those that are peculiar to the first, is, nevertheless, very considerable in Germany: for there is a great number of those gentlemen of the second rank, whose families pretend to be as antient and illustrious as those of the immediate nobles, and who, in marrying, prefer the poorest gentlewoman to the richest plebeian. As for the gentlemen of the first rank, many of them are descended from those heroes who accompanied Charlemagne and his successors in all the victories they obtained over the Saxons and other nations which they subjected to their empire. Many others coming from the neighbouring states to settle in Germany, were afterwards united with this body of nobility, because they were of noble extraction; while others again, whose fathers had merited that rank by their personal virtue and exploits, were in the sequel immatriculated among the antient nobility, by patents obtained from the emperor; but these cannot be admitted into the chapters, from which are chosen the

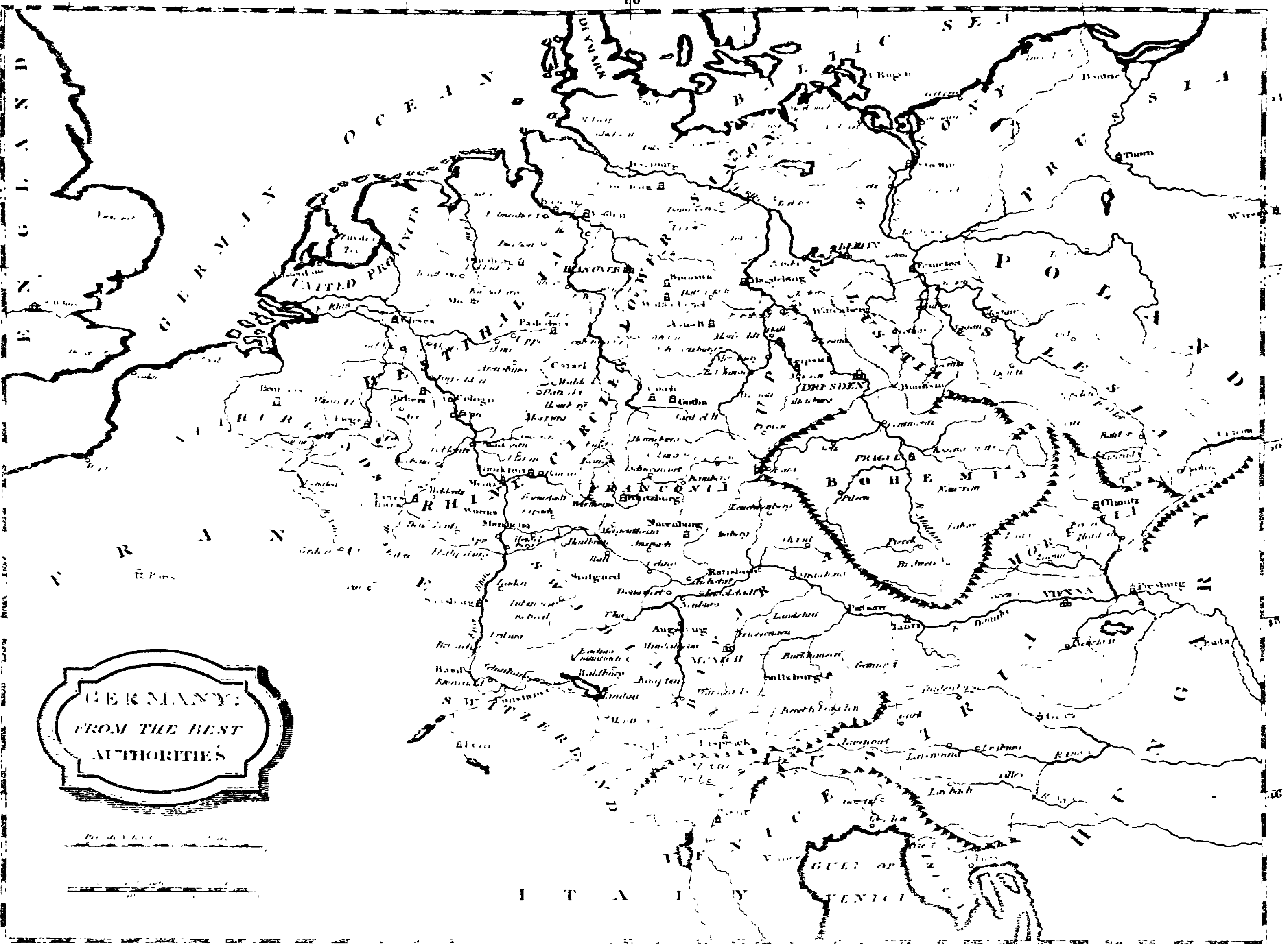
archbishops, electors of Mentz, Triers, and Cologne, together with the other bishops and prelates who are princes of Germany; because, before a person can be received into this chapter, he must prove his nobility in 32 descents, both by father and mother.

The immediate nobility possess fiefs, which they hold only of the emperor and empire, and are intailed on heirs male: because, by an express clause in their charter, they are obliged to serve the emperor in person, upon all occasions, with a certain number of servants, according to the strength and revenue of the fief. Almost all their fiefs are situated in Suabia, Franconia, and all along the Rhine, comprehending Lower Alsace: a disposition made on purpose, that the nobility, being less dispersed, might be the more ready on all emergencies, and more conveniently defend the frontiers on that side, against foreign invasion.

The emperor has bestowed upon the immediate nobility the same privileges enjoyed by the other immediate states of the empire, with power to raise taxes through the whole extent of their respective fiefs, and to exercise a civil and criminal jurisdiction; the last of which is without appeal; but from the civil, there lies an appeal to the Aulic council, or imperial chamber of Spire.

Heretofore this nobility was admitted to the imperial diets, where they even pretended to take the rank of the cities; but, on account of the extraordinary expences incurred by their sitting, the calling of them was gradually neglected, though they are left at liberty to assess themselves in contributing to the public necessities of the empire.

This nobility forms a kind of aristocratical republic; for though they are divided into three classes, they never fail, on important occasions, to join their counsels and strength for the preservation of the whole. They have divided the circle of Suabia into five departments, called quarters; that of Franconia into six; and that of the Rhine into four. All these quarters have their chiefs, which, in Suabia and lower Alsace, are called directors; but in Franconia and the Upper and Lower Rhine, they are chosen sometimes from one family, and sometimes from another. A chief can regulate nothing without the advice of two or three other gentlemen, who are nominated as his coadjutors, and a lawyer is to be consulted in such affairs as depend upon the interpretation of the law. With these counsellors, the director or captain examines the differences that are brought before them, and exerts himself for the preservation of the privileges of the whole body. If it is necessary to repress the injustice or violence of any nobleman, the director or captain convenes the whole circle, or even all the three circles, to support and give sanction to his determination; and as to public affairs, the quarters usually assemble once a-year.


GERMANY:
FROM THE BEST
AUTHORITIES
GERMAN OCEAN
BALTIC SEA
DENMARK
UNITED PROVINCES
ENGLAND
FRANCE
SWITZERLAND
ITALY
GULF OF VENICE
POLAND
PRUSSIA
SILESIA
BOHEMIA
LUSATIA
MORAVIA
HUNGARY
FRANCONIA
BERLIN
DRESDEN
PRAGUE
VIENNA
MUNICH
HANOVER
Thorn
Presburg
Cologne
Munich
Augsburg
Nuremburg
Ratisbon
Stutgard
Pilsen
Olmutz
Saltzburg
Lindau
Paris

A GENERAL VIEW

OF THE

SUBDIVISIONS OF GERMANY.

I. *Upper Saxony Circle.*

Divisions.	Subdivisions.	Chief Towns.	Sq. M.
Pomerania in the North	Prus. Pomerania, N. E. Swed. Pomerania. N. W.	Stettin, E. l. 14-50. N. lat. 53-30, Stralsund	4820 2991
Brandenburgh in the middle sub. to its own elector, the king of Prussia	Altmark, W. Middlemark Newmark, E.	Stendel Berlin, Potsdam Frankf. Custrin	10,910
Saxony proper in the S. sub. to its own elector	Duchy of Saxony, N. Lusatia, marq. E. Misnia, marq. S.	Wirtenburg Bautzen, Gorlitz Dresden, E. l. 13-86. N. lat 51. Meissen	7506
Thuringia langrave west		Erfurt	3620
The duchies of	Saxe Meinungen Saxe Zeitz Saxe Altenburg, S. E. Saxe Weimar, W. Saxe Gotha, W. Saxe Eisnach, S. W. Saxe Saalfeldt Subject to their own dukes.	Meinungen Zeitz Altenburg Weimar Gotha Eisnach Saalfeldt	240 1700
The counties of	Schwarts W. Beichingen, N. Mansfeldt, N. Subject to their respective counts	Schwartsburg Belchingen Mansfeldt	96
The duchies of	Hall, mid. subject to Prussia Saxe Naumburg, subject to its own duke	Hall Naumburg	210
The counties of	Stolberg, N. W. Hohenstein, W.	Stolberg Northhausen	

Divisions.	Subdivisions.	Chief Towns.	Sq. M.
Principality of	Anhalt, N.	Dessau, Zerbst Bernberg Kothen	966
Bishopric of	Saxe Hall, W.	Hall	
	Voigtland, south, subject to the elector of Saxony	Plawen	696
Duchy of	Mersburg, middle, subject to the elector of Saxony.	Mersburg	336

II. Lower Saxony Circle.

Divisions.	Subdivisions.		Chief Towns.	Sq. M.
Holstein D. N the Elbe	Holstein Proper N. Ditmarsh, W. Stomaria, S Hamburg, a sovereign state Wagerland, E.	Partly sub. to Denmark, and partly to the duke of Holstein Gottorp.	Kiel, sub. to Holstein Gottorp Meldorp, Gluckstadt, su to Den Hamburg, E l 10-35 N. l 54 an imperial city Lubeck, an imperial city	1850
Lauenburg D. north of the Elbe, subject to Hanover			Lauenburg	450
Subject to the duke of Brunswick Wolfenbuttle	D. Brunswick Proper D. Wolfenbuttle C Rheinstein, S. C. Blanckenburg	middle	Bruns. E. l. 10-32 N l. 52-30. Wolfenbuttle Rheinstein Blanckenburg	860
Subject to the elector of Hanover, king of Great Britain	D. Calenberg D. Grubenhagen Gottingen		Hanover Grubenhagen Gottingen	8024
Luneburg D sub to Han.	D of Luneburg Proper D Zell		Luneburg Zell, E. lon. 10. N. lat 52-52.	
Bremen D. and Verden D. sub. to Hanover, N.			Bremen, l 1.9. N. l. 53-33 an im ci. Verden	2040
Mecklenburg D	D. Schwerin, N. subject to its duke		Schwerin, E. lon. 11-30. N. lat. 54	

Divisions.	Subdivisions.	Chief Towns.	Sq. M.
Mecklenburg D. cont.	D. Gustrow, N. subject to its duke	Gustrow	4400
Hildesheim bishopric, in the middle, sub. to its bishop		Hildesheim, an imperial city	1302
Magdeburg duchy, S. E. subject to the king of Prussia		Magdeburg	1535
Halberstadt duchy, subject to Prussia, S. E.		Halberstadt	450

III. Westphalia Circle.

Divisions.	Subdivisions.	Chief Towns.	Sq. M.
North division	Embden C. or East Fries. sub. to the king of Prussia	Ebden, an imperial city	720
	Oldenburg C. sub. to the K. of Den.	Oldenburg	
	Delmenhurst sub. to the K. of Den.	Delmenhurst	
	Hoye subject to Hanover	Hoye	624
	Diepholt subject to Hanover	Diepholt	220
Western division	Munster B. sub. to its bp.	Munster, E. l. 7-10. N lat 52	3600
	Paderborn B. sub. to its bp.	Paderborn	800
	Osnaburg B. sub to its bp.	Osnaburg	870
	Lippe C. sub. to its count	Lippe, Pyrmont	400
	Minden D. sub. to Pr.	Minden	495
	Ravensburg C sub. to Pr.	Ravensburg	525
	Westphalia D. sub. to the elector of Cologne	Arensburg	1444
	Tecklenb. C. sub. to their respective counts	Tecklenburg	840
	Ritberg C sub. to their respective counts	Ritberg	120
	Schauenb. C. sub. to their respective counts	Schauenburg	
Middle division	Cleves D sub to the king of Prussia	Cleves, E. l. 5-36 N. lat. 51-40	630
	Berg D. sub. to the elector Palatine	Dusseldorf	1300
	Juliers D sub. to the elector Palatine	Juliers, Aix	
	Mark C. sub to Prussia	Ham	980
	Liege B sub. to its own bp.	Liege, E. lon. 5-56 N. lat. 50-40. Huy	1942
	Benth C. sub to Hanover	Bentheim	418
	Steinfort C. sub. to its own count	Steinfort	114

IV. Upper Rhine Circle.

Divisions.	Subdivisions.	Chief Towns.	Sq. M.
Hesse	Hesse Cassel, landgrave, N.	Cassel, E. l. 9-20 N. lat. 51-20.	3500
	Hesse Marpurg, landg. N.	Marpurg	
	Hesse Darmstadt, landg	Darmstadt	396
	Each of the above subdivisions are subject to their respective landgs.		
	Hesse Homberg	Homberg	
	Hesse Rhinefeldt	Rhinefeldt	180
	Wonfeldt	Wonfeldt	
Cs. in the Wetteraw, S.	Nassau Dillenburg	Dillenburg	1200
	Nassau Diets	Diets	
	Nassau Hadamar	Hadamar	
	Nassau Kerberg	Kerberg	
	Nassau Siegen	Siegen	
	Nassau Idstein	Idstein	
	Nassau Wielburg	Wielburg	
	Nassau Wisbaden	Wisbaden	
	Nassau Bielsteid	Bielsteid	
	Nassau Otweiler	Otweiler	
	Nassau Usingen	Usingen	
	Each county subject to its own count of the House of Nassau.		
Territory of Frankfort, a sovereign state		Frankfort on the Maine, E. l. 8-30 N. l. 50-10. Im. ci.	120
County of Erpach, subject to its own count		Erpach, E.	230
Bishopric of Spire, a sovereign state		Spire on the Rhine an Imp. city	245
Duchy of Zweybrucken, or Deuxponts, subject to the duke of Deuxponts		Deuxponts in the Pa.	700
County of Catzenelbogen, subject to Hesse Cassel		Catzenelbogen on the Lhon	
Counties of	Waldeck, sub. to its own C.	Waldeck	368
	Solms, sub. to its own count	Solms	
	Hanau, sub. to Hesse Cassel	Hanau	432
	Isenburg, sub. to its own C.	Isenburg	
	Sayn	Sayn	

Divisions.	Subdivisions.		Chief Towns.	Sq. M.
Counties of continued	Wied Witgenstein Hatzfield Westerburg		Wied Witgenstein Hatzfield Westerburg	
Abbey of Fulda, subject to its abbot			Fulda	621
Hirschfeld, subject to Hesse Cassel			Hirschfeld	

V. Lower Rhine Circle

Divisions.	Subdivisions.		Chief Towns.	Sq. M.
Palatinate of the Rhine, on both sides that river, subject to the elector Palatine			Heidelberg on the Neckar, E. l 8-40 N. lat. 49-20. Philipsburg, Manheim, and Frankendal on the Rhine.	2618
Archbishoprics and electorates of	Cologne	Subject to their respective electors.	Cologne, on the Rhine, E l 6-40 N l. 50-50. Bonn, on the Rhine	1964
	Mentz		Mentz, on the Rhine Aschaffenburg on the Maine	1405
	Triers		Triers on the Moselle	1765
Bishopric of Worms, a sovereign state			Worms on Rhine, an imp. city	154
Duchy of Simmeren, subject to its own duke			Simmeren	
Counties of	Rhinegravestein Meurs, subject to Prussia Veldentz, sub. to the elector Palatine Spanheim Leyningen		Rhinegravestein Meurs Veldentz Crentznach Leyningen	

VI. Franconia Circle.

Divisions.	Subdivisions.		Chief Towns.	Sq. M.
Bishoprics of	Wurtsburg, N. Bamberg, N. Aichstat, S.	Sub. to their resp. bps.	Wurtsburg Bamberg Aichstat	1645 1700 513

Divisions.	Subdivisions.		Chief Towns.	Sq. M.
Marquisates of	Cullenback, north-east	Sub. their respect. margrs.	Cullenback	900
	Anspach, south		Anspach	1000
Principality of Henneberg, N.			Henneberg	
Duchy of Coburg, N subject to its duke			Coburg	406
Duchy of Hilburghausen, subject to its duke			Hilburghausen	
Burgravate of Nuremberg, S. E an indepenaent state			Nuremberg, an imperial city	640
Territory of the great master of the Teutonic order, Mergentheim, S. W.			Mergentheim	56
Counties of	Rheineck, W.		Rheineck	
	Bareith, E. sub. to its mar.		Bareith	
	Papenheim, S subject to its own count		Papenheim	
	Wertheim, W		Wertheim	
	Cassel, middle		Cassel	
	Schwartzburg, subject to its own count		Schwartsburg middle	96
	Holach, S. W.		Holach	220

VII. Austria Circle.

The whole circle belongs to the emperor, as head of the House of Austria.

Archduchy of Austria proper		Vienna, E. lon. 16 20. N. l. 48-20. Lints, Ens, W.	7106
Duchies of	Stiria and Cilley, C.	Gratz, Cilley, S. E	5000
	Carinthia	Glagenfort, Lavem S. E	3000
	Carniola	Laubach, Zerknitz, Trieste, St. Veits, S. E.	1576
	Goritia	Gorits, S E.	
County of Tyrol		Inspruck	S. W. on the confines of Italy and Switzerland. 3900
Bishoprics of	Brixen	Brixen	1300
	Trent	Trent	210

VIII. [illegible]

Divisions			Chief towns	Sq. M.
[illegible]	[illegible] to the [illegible] Palatine [illegible]		[illegible] E. lat. [illegible] [illegible] W. Donau [illegible] ... ult bach [illegible]	[illegible]
[illegible]			[illegible]	240
Bi[illegible] subject to its own bishop			[illegible] of the Danube	[illegible]
Duc[illegible] subject to the [illegible]			[illegible] W. of the Danube	[illegible]
Archbishopric of [illegible] subject to its own archbishop			[illegible] S. E. [illegible]	2540

IX. [illegible]

Duchy of Wurtemburg subject to the duke of Wurtemberg [illegible]		[illegible] N. lat. 48 [illegible] Hailbron	On [illegible] the Neckar	[illegible]
[illegible] of	Baden Baden; Baden [illegible]	[illegible] to their respective [illegible]	Baden; Baden; Durlach	On or near the Rhine	[illegible]
[illegible] of Augsburg, subject to its bishop		[illegible] imperial city, [illegible] Blenheim on or near the Danube		[illegible]
[illegible] sovereign state		Ulm on the Danube, imperial city		[illegible]
[illegible] of Constance, subject to its own bishop [illegible] the House of Austria		Constance on the Lake of Constance		[illegible]
[illegible] of	Mindelheim; Furstenberg; Hohenzollern	Subject to their respective princes	Mindelheim S. of Augs; Furstenberg, S.; Hohenzollern S.	216; 788; 156
[illegible]	[illegible]ting; Konigseck; Hohenrichburg		[illegible]ting E.; [illegible]eck S. E.; [illegible] N.	[illegible]80; 379
Baronies of	Waldburg; Limpurg		Waldburg S. E.; Limpurg, N.	126
Abbeys of	Kempten; Buchau; Lindau		Kempten on the Iler; Buchau, S. of the Danube; Lindau on Lake of Constance, imp. ci[illegible]	
Imperial cities, or sovereign states			Nordlingen N. of the Danube; Memmingen E.; Rotweil, on Neckar, and many more	

Divisions.		Chief Towns.	Sq. M.
Sub. to House of Austria	Black Forest, S. W. Rhinefeldt, C.	Rhinefeldt and Lauffenburg	4[illegible]0
	Marq. of Burgaw	Burgaw, E.	6[illegible]0
	Territory of Brisgau on the Rhine	Friburg and Brisac	[illegible]80

Berlin lies on the river Spree, and besides the royal palace, has many other superb edifices. It contains 14 Lutheran and 11 Calvinist churches, besides a Catholic one. Its streets and squares are spacious, and built in a very regular manner, but the houses, though neat without, are ill finished, and ill furnished within, and very indifferently provided with inhabitants. The king's palace here, and that of prince Henry, are very magnificent buildings. The opera house is also a beautiful structure; and the arsenal, which is handsomely built, in the form of a square, contains arms for [illegible]00,000 men. There are sundry manufactures in Berlin, and several schools, libraries, and charitable foundations.

The number of its inhabitants, according to Busching, in 17[illegible], was 1[illegible]6,6[illegible]0, including the garrison. In the same year, and according to the same author, there were no fewer than 443 silk looms, 149 of half silks, 2858 for woollen stuffs, 4[illegible] for cotton, 248 for linen, 454 for lace work, 39 frames for silk stockings, and 310 for worsted ones. In the year 1774, the number of inhabitants was 104,874, of whom 5385 were French, and 1162 Bohemians; and the garrison, reckoning attendants, amounted to 2[illegible],[illegible]40 souls, which may be added to the number of the inhabitants. They have here manufactures of tapestry, gold and silver lace, and mirrors.

The electorate of Saxony is by nature the richest country in Germany, if not in Europe; it contains 210 walled towns, 61 market towns, and about 3000 villages, according to the latest accounts of the Germans themselves (to which, however, we are not to give an implicit belief); and the revenue, estimating each rix-dollar at four shillings and six-pence, amounts to 1,350,000*l*. This sum is so moderate, when compared to the richness of the soil (which, if we are to believe Dr. Busching, produces even diamonds, and almost all the precious stones to be found in the East Indies and elsewhere), and the variety of splendid manufactures, that the Saxon princes appear to have been the most moderate and patriotic of any in Germany.

Dresden, the elector of Saxony's capital, is remarkable for its fortifications, palaces, public buildings, churches, and charitable foundations; it is beautifully situated on both sides the Elbe, and is the school of Germany for statuary, painting, enamelling, and carving, not to mention its mirrors, and foundries for bells and cannon, and its foreign commerce, carried on by means of the Elbe. The inhabitants of Dresden, by the latest accounts, amount to 110,000.

The city of Leipsic, in Upper Saxony, 46 miles distant from Dresden, is situated in a pleasant and fertile plain on the Pleisse, and the inhabitants are said to amount to about 40,000. There are also large and well built suburbs, with handsome gardens. The

tween these suburbs and the town is a fine walk of lime-trees, which was laid out in the year 1702, and encompasses the city. Mulberry-trees are also planted in the town ditches; but the fortifications seem rather calculated for the use of the inhabitants to walk on than for defence. The streets are clean, commodious, and agreeable, and are lighted in the night with 700 lamps. They reckon 436 merchant houses, and 192 manufactures of different articles, as brocades, paper, cards, &c. Leipsic has long been distinguished for the liberty of conscience allowed here to persons of different sentiments in religion. Here is an university, which is still very considerable, with six churches for the Lutherans (theirs being the established religion), one for the Calvinists, and a chapel in the castle for those of the Romish church. The university library consists of about 26,000 volumes, 6000 of which are folios. Here is also a library for the magistrates, which consists of about 36,000 volumes, and near 2000 manuscripts, and contains cabinets of urns, antiques, and medals, with many curiosities of art and nature. The exchange is an elegant building.

The principality of Anhalt is not so full of towns as some parts of Germany, but they are better peopled and the inhabitants are in such comfortable circumstances, that they are said to live in the land flowing with milk and honey.

The duchy of Magdeburg is for the most part level, but sandy, marshy, or overgrown with woods. There are salt springs in it, so rich that they are sufficient to supply all Germany with that commodity.

The city of Magdeburg, the capital of Lower Saxony, has a great trade, is well fortified, and very antient. Here are a variety of manufactures; the chief of which are those of woollen cloths and stuffs, silks, cottons, linens, stockings, hats, gloves, tobacco, and snuff. It was formerly one of the Hans towns. It is populous and well built, particularly the Broad Street and Cathedral Square.

The principal buildings are, the king's palace, the Guildhall armoury, and cathedral. The last is a superb structure, in the antique taste, dedicated to St. Maurice, which has a fine organ, the master-pipe of which is so big, that a man can scarce clasp it with both arms; it also contains the tombs of the emperor Otho and the empress Editha; a fine marble statue of St. Maurice, a porphyry font, an altar in the choir, of one stone of divers colours, curiously wrought, and many other curiosities.

The duchy of Mecklenburg produces but very little wheat, and not a great deal of oats, rye, or barley; but breeds a considerable number of sheep and other cattle, has plenty of fish, and abounds with stone quarries, salt-springs, alum, iron, and has some copper. A part of these productions are exported; but here are no manufactures.

The best town in this country is Rostock, which has good fortifications and an arsenal. This town is famous for good beer, which they export in large quantities. Some years ago they had 250 privileged brewers, who each of them brewed 1000 tuns in a year, besides what was brewed by housekeepers.

The principality of Halberstadt is fertile in corn and flax, and there are some woods, though fuel in general is scarce. The manufactures are chiefly woollen: the ex-

ports are grain and beer. Halberstadt, its capital, is a neat uniform place; and has some good churches and other handsome buildings, of which the cathedral is the chief. There is an inn at this place, which is accounted the largest and best in Europe.

The imperial city of Goslar is a large and antient town, and celebrated as being the place in which gunpowder is supposed to have been invented by a monk. It is seated on a mountain, and near it are rich mines of iron. The inhabitants are noted for making excellent beer. About 18 miles from Goslar is a cave called Baumen. The entrance of it is through a rock; and so narrow, that not above one person can pass at a time. There are several paths in it, and some think it reaches as far as Goslar; but be this as it may, the skeletons of men have been found in it, who are supposed to have been lost in its turnings and windings.

Brunswick is the residence of the duke of Brunswick.

Wolfenbuttle is composed of five towns; and altogether is a large place; but the houses are almost all built of wood. It is of a square form, and strongly fortified. On its rampart is a mortar-piece of brass, ten feet six inches in length, and nine feet two inches in circumference, weighing 1800 quintals, and having 93 quintals of iron in its carriage. It will carry a ball of 7[illegible]0 pounds weight to the distance of 33,000 paces, and throw a bomb of 1000 pounds weight; but requires 53 pounds of gunpowder for its charge. The academy of Brunswick is said to be the best seminary on the continent for military education.

Wolfenbuttle is one of the strongest places in Germany. It has a library of 116,000 printed books, and 2000 uncommon books, with a cabinet of curiosities relative to natural history.

Hanover contains many extensive heaths and marshes; but notwithstanding produces abundance of corn, fruits, hemp, flax, tobacco, madder, and some wine. There are several large salt-works. A good many cattle are reared, and a great number of excellent horses. Most metals and minerals are found here. The forests furnish sufficient timber, and large quantities of pitch and tar. Literature is in a very advanced state throughout these dominions. The university of Gottingen is deservedly celebrated, and contains about 800 students of different nations, and 60 professors.

The city of Hanover is a large well-built town; and tolerably well fortified. Luneburg has a considerable traffic in wax, honey, wool, flax, linen, salt, lime, and beer. Bremen drives a very large trade for iron, flax, hemp, and linen, with France, England, Spain, and Portugal, and, in return, takes back other provisions, with which it supplies Westphalia and the countries about Hanover. It also gets a great deal by its fisheries: the trade for blubber with the south of Germany is very considerable. A great part of [illegible] consists of rich marsh land; which, being much exposed to inundations both from the sea and rivers, dikes have been raised, at a great expence, to defend them. The pastures in the marshes are so rich, that cattle are bred in vast numbers, and fattened in them; and great quantities of excellent butter and cheese made of their milk. They are also very fruitful in wheat, barley, peas, beans, and rape-seed. In the more barren, sandy, and heathy parts of the country, large flocks of sheep are

fed; nor are orchards wanted, or woods, especially of oak and beech; nor turf, poultry, game, and wild fowl. Here is a variety of sea and river fish; and the beef, veal, mutton, and lamb, are very fat and palatable. Holstein is also noted for beautiful horses.

Lubec stands at the conflux of several rivers, the largest of which is the Trane, 12 miles from the Baltic, where it has a fine harbour, and 40 north east of Hamburg. By the Steckenitz, another of those rivers, it has a communication with the Elbe, and consequently with the German Ocean. The city lies on the side of a hill, with the Trane, increased by the Steckenitz, on the one side, and the Wackenitz on the other; and is strongly fortified with bastions, moats, walls, and ramparts; the last of which are planted with trees, and form an agreeable walk. Lubec being formerly the chief of the Hans towns, was very powerful, in consequence of the vast trade it carried on; but a great part of that trade is now transferred to Hamburg; however, it is still said to employ 150 of its own ships and has a great share in the Baltic trade. It is about two miles in length and more than one in breadth. The houses are all of stone, but old fashioned. Several of the streets have on each side rows of lime-trees, with canals in the middle, like those of Holland. The public structures consist of the antient cathedral of the bishopric of Lubec, and several Lutheran churches; a nunnery for 22 ladies, with an abbess and prioress; a poor house, an alms house, and house of correction; an orphan house; an hospital, dedicated to the Holy Ghost; a house in which poor travellers are entertained three days, and then sent forward with a pass: but such as happen to be sick, are provided with all necessaries, till they recover or die; the city armoury, the grammar-school, the Calvinists' church, and popish chapel.

Hamburg, an imperial city of Germany, seated in east longitude 9° 40', north latitude 54°. Its name is derived from the old German word hamme, signifying a wood, and burg, a castle, and stands on the north side of the river Elbe. This river is not less than four miles broad opposite the city. It forms two spacious harbours, and likewise runs through most part of it in canals. It flows above Hamburg many miles; but when the tide is accompanied with north-west winds, a great deal of damage is done by the inundations occasioned thereby. There are a great many bridges over the canals, which are mostly on a level with the streets, and some of them have houses on both sides. In the year 833, Ludovicus Pius erected Hamburg first into a bishopric, and afterwards into an archbishopric; and Adolphus III. duke of Saxony, among many other privileges, granted it the right of fishing in the Elbe, eight miles above and below the city. The kings of Denmark, since they have succeeded to the counts of Holstein, have continually claimed the sovereignty of this place, and often compelled the citizens to pay large sums to purchase the confirmation of their liberties; nay, it has more than once paid homage to the king of Denmark; who, notwithstanding, keeps a minister here with credentials, which is a sort of acknowledgement of its independency and sovereignty. Though Hamburg has been constantly summoned to the diet of the empire, ever since the year 1618, when it was declared a free imperial city, by a decree of the aulic council, yet it waves this privilege, in order to keep fair with Denmark. By their

situation among a number of poor princes, the Hamburghers are continually exposed to their rapaciousness, especially that of the Danes, who have extorted vast sums from them.

The city is very populous in proportion to its bulk, for though one may walk with ease round the ramparts in two hours, yet it contains, exclusive of Jews, at least 100,000 inhabitants. Here are a great many charitable foundations, the regulations of which are greatly admired by foreigners. All persons found begging in the streets are committed to the house of correction to hard labour, such as the rasping of Brazil and other kinds of wood. There is an hospital, into which unmarried women may be admitted for a small sum, and comfortably maintained during the residue of their lives. The number of hospitals in this place is greater in proportion to its bigness than in any other protestant city in Europe. The revenue of the orphan house alone is said to amount to between 50 and 60,000*l.* There is a large sumptuous hospital for receiving poor travellers that fall sick. In one of their work-houses, or houses of correction, those who have not performed their task are hoisted up in a basket over the table in the common-hall, while the rest are at dinner, that they may be tantalized with the sight and smell of what they cannot taste.

The established religion of Hamburg is Lutheranism; as for the Calvinists and the Roman catholics, they go to the ambassadors' chapels to celebrate their divine service and worship. They have here what they call a private confession, previous to the holy communion, which differs in nothing from that of the church of England; and the absolution is the same, only the poorest of the people here are forced to give a fee to the priests on these occasions. Their churches, which are antient large fabrics, are open thoroughfares, and in some of them are booksellers' shops. The pulpit of St. Catharine's is of marble, curiously carved, and adorned with figures and other ornaments of gold; and its organ, reckoned one of the best in Europe, has 6000 pipes. The cathedral is very antient, and its tower leans as if just going to fall; yet, on account of the singularity and beauty of its architecture, the danger attending it has been overlooked. There is still a dean and chapter belonging to this church, though secularized; from whose court there lies no appeal but to the imperial chamber at Wetzlar. The chapter consists of a provost, dean, 13 canons, eight minor canons, and 30 free vicars, besides others who are under the jurisdiction of the city. The cathedral with the chapter, and a number of houses belonging to them, are under the immediate protection of his Britannic majesty, as duke of Bremen, who disposes of the prebends that fall in six months in the year, not successively, but alternately with the chapter.

Hamburg is almost of a circular form, and six miles in compass. It has six gates, and three entrances by water; viz. two from the Elbe and one from the Alster, being divided into the old and new, which are strongly fortified with moats, ramparts, bastions, and out-works. The ramparts are very lofty, and planted with trees; and of such a breadth, that several carriages may go a-breast. In the New town, towards Altena, are several streets of mean houses, inhabited by Jews. Through the entrances from the Elbe, called the lower Baum, pass all ships going to or coming from sea. Every morn-

ing, at the opening of it is seen a multitude of boats and small barks, whose cargoes consist of milk, fruits, and all kinds of provisions, rushing in at the same time. There are some fine chimes here, especially those of St. Nicholas, which play every morning early, at one o'clock in the afternoon, and on all festivals and solemnities.

The other public structures in this city, besides the churches, make no great appearance; however, the yard, arsenal, and two armouries, are well worth seeing. There are several convents or cloisters still remaining; which, having been secularised, are now possessed by the Lutherans. One of them holds its lands by the tenure, "That they offer a glass of wine to every malefactor who is carried by it for execution."

There is a fine exchange, though inferior to that of London. It is the custom of Hamburg, that a citizen, when he dies, must leave the tenth of his estate to the city; and foreigners, not naturalized, must pay a certain sum annually for liberty to trade. The common carts here are only a long pulley, laid upon an axle-tree between two wheels, and drawn, not by horses, but by men, of whom a dozen or more are sometimes linked to these machines, with slings across their shoulders.

Such of the senators, principal elders, divines, regular physicians, and graduates in law, as assist at funerals, have a fee. The hangman's house is the common prison for all malefactors; on whom sentence is always passed on Friday, and on Monday they are executed. As, by their laws, no criminal is punishable, unless he pleads guilty, they have five different kinds of torture to extort such confession.

The government of this city is lodged in the senate and three colleges of burghers The former is vested with almost every act of sovereignty, except that of laying taxes and managing the finances, which are the prerogatives of the latter. The magistracy is composed of four burgomasters, four syndics, and 24 aldermen, of whom some are lawyers and some merchants. Any person elected into the magistracy, and declining the office, must depart the place. No burgher is admitted into any of the colleges, unless he dwells in a house of his own within the city, and is possessed of 1000 rix-dollars in specie, over and above the sum for which the house may be mortgaged; or 2000 in moveable goods, within the jurisdiction of the same. For the administration of justice, here are several inferior courts, from which an appeal lies to the Obergericht, or high court, and from that to the aulic council and other imperial colleges. For naval causes, here is a court of admiralty, which, jointly with the city treasury, is also charged with the care of the navigation of the Elbe, from the city to the river's mouth. In consequence of this, 100 large buoys, some white, others black, are kept constantly floating in the river in summer; but in winter, instead of some of them, there are machines, like those called ice-beacons, to point out the shoals and flats. Subordinate to the admiralty is a company of pilots; and at the mouth of the Elbe is, or at least ought to be, a vessel always riding, with pilots ready to be put on board the ships. At the mouth of the river also is a good harbour, called Cuxhaven, belonging to Hamburg; a light-house; and several beacons, some of them very large. For defraying the expence of these, certain tolls and duties were formerly granted by the emperors to the city. Besides the Elbe, there is a canal by which a communication is opened with the

Trave, and thereby with the Lubeck and the Baltic, without the hazard, trouble, and expence, of going about by the Sound.

The trade of Hamburg is exceeding great, in exporting all the commodities and manufactures of the several cities and states of Germany, and supplying them with whatever they want from abroad. Its exports consist of linens of several sorts and countries; as lawns, diapers, Osnaburgs, dowlas, &c.; linen-yarn, tin-plates, iron, brass, and steel-wire, clap-boards, pipe-staves, wainscot-boards, oak-plank, and timber; kid-skins, corn, beer in great quantities, with flax, honey, wax, aniseed, linseed, drugs, wine; tobacco, and metals. Its principal imports are the woollen manufactures and other goods of Great Britain, to the amount of several hundred thousand pounds a-year; they have also a great trade with Spain, Portugal, and Italy, which is carried on mostly in English bottoms, on account of their Mediterranean passes.

Their whale-fishery is also very considerable, 50 or 60 ships being generally sent out every year in this trade. Add to these a variety of manufactures which are performed here with great success; the chief of which are, sugar-baking, calico-printing, the weaving of damasks, brocades, velvets, and other rich silks. The inland trade of Hamburg is superior to that of any in Europe, unless, perhaps, we should except that of Amsterdam and London. There is a paper published here at stated times, called the Preis-courant, specifying the course of exchange, with the price which every commodity and merchandise bore last opon the exchange. There is also a board of trade, erected on purpose for the advancing every project for the improvement of commerce. Another great advantage to the merchants is the bank, established in 1619, which has a flourishing credit.

To supply the poor with corn at a low price, here are public granaries, in which great quantities of grain are laid up.

By charters from several emperors, the Hamburghers have a right of coinage, which they actually exercise. The English merchants, or Hamburg company as it is called, enjoy great privileges; for they hold a court with particular powers, and a jurisdiction among themselves, and have a church and minister of their own. This city has a district belonging to it of considerable extent, which abounds with excellent pastures, intermixed with several large villages and noblemen's seats. A small bailiwic, called Bergedorf, belongs to this city and Lubec.

There is a schola illustris or gymnasium here, well endowed, with six able professors, who read lectures in it as at the universities. There are also several free-schools, and a great number of libraries, public and private.

The public cellar of this town has always a prodigious stock and vent of old hock, which brings in a considerable revenue to the state. Besides the militia or trained bands, there is an establishment of regular forces, consisting of 12 companies of infantry, and one troop of dragoons, under the commandant, who is usually a foreigner, and one who has distinguished himself in the service. There is also an artillery company, and a night-guard; the last of which is posted at night all over the city, and calls the hours.

The circle of Westphalia is generally marshy and barren; yet there is some good corn and pasture land: but the fruit is chiefly used to feed hogs, and hence it is that their bacon and hams are so much admired.

Munster, the capital of Westphalia, stands at the conflux of the river Aa with the Ems. It is of a circular form, large, and well fortified, both by nature and art. It has a fine citadel, erected by a bishop, named Bernard van Galen, in order to awe the burghers. In this city are a great number of convents and other religious houses, many of them stately piles, and surrounded with excellent gardens.

Paderborn was formerly an imperial city, and a Hans town, and possessed a considerable trade; but is now greatly declined, and the inhabitants live chiefly by agriculture and feeding cattle.

Osnaburg, or Osnabruck, was formerly an imperial city, and one of the Hans towns; but is now subject to the bishop, though it still enjoys many privileges, and a revenue of about 8000 or 9000 rix-dollars. It has its name from a bridge over the river Hase, or Ose, which divides it into the Old and New Town, and stands 75 miles west of Hanover, and 30 north-east of Munster, being surrounded with walls and ditches, but commanded by a mountain, within cannon-shot. It stands in a fine plain, and is adorned with several good buildings, and on the mountain there is an abbey. The magistracy of this city, which is re-chosen yearly, on the 2nd of January, is Lutheran; and the churches belong, some to the Lutherans, and some to the papists. Both parties have the full and free exercise of their religion, whether the bishop be protestant or papist. The bishop's palace, called Petersburg, was built by bishop Ernest Augustus, brother to king George I. It is well fortified, and separated from the town by a bridge. It is a hexagon, with a court in the middle, and at each corner a turret. In the town-house are still preserved the pictures of the plenipotentiaries that assisted at the conferences there for the famous treaty of Westphalia. In the treasury of the cathedral are still to be seen some ornaments given by Charlemagne, as also his crown, which is only of silver gilt, and his comb and batoon, six feet in length, both of ivory; together with other curiosities. Charlemagne is said to have erected here a school for latin and greek, which the Jesuits, in 1625, converted into an academy. They have the best bread and beer that is to be met with in all Westphalia, and have a pretty good trade in bacon and linen; as also by brewing a palatable thick sort of beer, called busc. This city is noted for a treaty betwixt the emperor and the king of Sweden, in 1648, wherein the affairs of the protestants were regulated, which was a branch of the treaty of Westphalia. The town, with the rest of the principality, is subject to its bishop, who is count of the empire, and, by the treaty of Westphalia, must be alternately a protestant and papist. The popish bishop is suffragan to the archbishop of Cologne; but the protestant bishop is indeed a temporal prince, and always of the house of Brunswick, in consideration of the principality of Halberstat, which was taken from this house, and conferred upon the elector of Brandenburg. Frederick, duke of York, second son of his majesty George III. is the present bishop. The cathedral is in the hands of the Roman catholics, with the church and monastery of the Dominicans in the old city, and the

collegiate church of St. John in the new. The protestants are masters of the great parochial church of St. Mary in the old city; and both religions have a voice in the election of magistrates. Of 25 canons belonging to the cathedral, 18 are Roman catholics, and the revenues of four more are enjoyed by the Jesuits, for the support of their college, so that there are but three protestant canons, who have no voice in the election of the Roman catholic bishop, when it is his turn to succeed. The bishop's palace is fortified like a castle: here it was that George I. was born, on the 28th of May, 1660, his father Ernest Augustus, being then bishop and prince of the place; and here also he died, in the night of the 10th of June, 1727, and, as some say, in the very room in which he was born. The bishopric is situated in the centre of the circle; the north part of it is very marshy, but at the southern extremity of it are some mountains. The inhabitants have considerable manufactures of linen, and a good breed of cattle, and of their hogs, for which they are remarkable, is made the best Westphalia bacon. Not far from this city are to be seen the ruins of an old church and castle, called Bee-lem, which some say was built by king Wittekind, upon his conversion, and about two miles from it is the monastery of Rulle, on the bank of a lake so deep, that report says it could never yet be fathomed. This was the first town in Westphalia which received the Lutheran doctrine.

Lippe is seated on a river of the same name, and carries on a considerable trade in preparing timber for the building of vessels on the Rhine. The country round it is unwholesome and marshy. Near Pyrmont are mineral waters, which are much esteemed.

Cleves, a city of Germany, in the duchy of Cleves, of which it is the capital, stands upon a pleasant hill, about three miles from the Rhine, with which it communicates by means of a canal, which is large enough for great barges. The castle stands upon a mountain; and, though old, is very agreeable. Calvinists, Lutherans, and Roman catholics, are all tolerated in the city. East longitude 5° 36′; north latitude 51° 40′.

Juliers, a city, capital of the duchy of Juliers, in Westphalia; some think this city was founded by Julius Cæsar, or Julia Agrippina; but this is much questioned by others, because it is not mentioned before Antoninus's Itinerary and Theodosius's tables. The town is small, but well fortified, and neatly built; the houses are of brick, and the streets broad and regular. The citadel is large and very strong, containing a palace of the antient dukes, and a spacious piazza. In the suburbs there is a monastery of Carthusians, nobly endowed by several dukes of Juliers. The town is but poorly inhabited, though they have a fine woollen manufactory in this country, and likewise another of linen. It was taken by prince Maurice of Nassau, in 1610, and by the Spaniards in 1622. It is seated on the river Roer, in east longitude 6° 35′; north latitude 50° 55′.

Aix-la-Chapelle is a free city of Germany, in the circle of Westphalia, and duchy of Juliers.

All authors are agreed about its antiquity, it being mentioned in Cæsar's Commentaries and the Annals of Tacitus. The Romans had colonies and fortresses there, when at war with the Germans; but the mineral waters and the hot bath so increased its fame,

that, in process of time, it was advanced to the privileges of a city, by the name of Aquægranii, that is, the waters of Granius; that which it has now, of Aix-la-Chapelle, was given it by the French, to distinguish it from the other Aix. It is so called on account of a chapel built in honour of the Holy Virgin, by Charlemagne; who, having repaired, beautified, and enlarged the city, which was destroyed by the Huns in the reign of Attila, in 451, made it the usual place of his residence. The town is seated in a valley, surrounded with mountains and woods, and yet the air is very wholesome.

It may be divided into the inward and outward city. The inward is incompassed with a wall, about three quarters of a league in circumference, having ten gates; and the outward wall, in which there are 11 gates, is about a league and a half in circumference. There are rivulets which run through the town, and keep it very clean, turning several mills; besides 20 public fountains, and many private ones. They have stone quarries in the neighbourhood, which furnish the inhabitants with proper materials for their magnificent buildings, of which the stadt-house and the cathedral are the chief. There are likewise 30 parochial or collegiate churches. The market-place is very spacious, and the houses round it are stately. In the middle, before the stadt-house, is a fountain of blue stones, which throws out water from six pipes into a marble bason, placed beneath, 30 feet in circumference. On the top of this fountain is placed the statue of Charlemagne, of brass, gilt, holding a sceptre in his right hand, and a globe in his left. The stadt-house is adorned with the statues of all the emperors since Charlemagne. This fabric has three stories, the upper of which is one entire room, of 162 feet in length, and 60 in breadth. In this the new elected emperor formerly entertained all the electors of the empire.

Aix-la-Chapelle is a free imperial city, and changes its magistracy every year on the eve of St. John Baptist. The mayor is in the nomination of the the elector palatine, in the quality of the duke of Juliers, as protector of the city. This place is famous for several councils and treaties of peace concluded here: particularly those between France and Spain, in 1668, and between Great Britain and France, in 1748.

The hot sulphurous waters, for which this place has so long been celebrated, arise from several sources, which supply eight baths, constructed in different parts of the town. These waters, near the sources, are clear and pelluced; and have a strong sulphurous smell, resembling the washing of a foul gun; but they lose this smell by exposure to the air. Their taste is saline, bitter, and urinous. They do not contain iron. They are also neutral near the fountain, but afterwards are manifestly and pretty strongly alkaline, insomuch that cloths are washed with them without soap. On the vaults above the springs and aqueducts of these waters is found, every year, when they are opened, a quantity of fine white-coloured flowers of sulphur, which has been sublimed from the waters.

The time of drinking, in the first season, is from the beginning of May to the middle of June; and in the latter season, from the middle of August to the latter end of September.

There are galleries or piazzas, under which the company walk during the time of drinking, in order to promote the operation of the waters. The poor's bath is free for every body, and is frequented by crouds of poor people.

It is scarcely necessary to add, that there are all kinds of amusements common to other places of public resort; but sharpers appear more splendid here than elsewhere, assuming titles, with an equipage suitable to them. Aix-la-Chapelle is 21 miles from Spa, 36 from Liege, and 30 from Cologne. East longitude 5° 48; north latitude 51° 55'.

Liege, a bishopric of Germany, in the circle of Westphalia, is bounded to the north by Brabant; to the south by Champagne and Luxemburg; to the east by Lunenburg and Juliers; and to the west by Brabant, Namur, and Hainault. It is very unequal both in length and breadth; the former being in some places above 90 miles, in others not half so much; and the latter in some places 45, in others hardly 20. The air here is very temperate and the soil fruitful in corn, wine, wood, and pasture. Here also are mines of lead and iron, pits of coal, quarries of marble and stone, and some celebrated mineral waters, as those of Spa and Chau-fontaine. The principal rivers are the Maes and Sambre. The manufactures and commodities of the country are chiefly beer, arms, nails, serge, leather, with the products we have just mentioned.

Hesse has a cold but healthful air; and a soil fruitful in corn, wine, wood, and pasture. The country abounds also in cattle, fish, and game, salt springs, baths, and mineral waters. The hills, which are many, yield silver, copper, lead, iron, alum, vitriol, pit-coal, sulphur, boles, a porcelain earth, marble, and alabaster. In the Eder, gold is sometimes found; and at Frankenburg a gold mine was formerly wrought. Here are three universities, besides a latin school and gymnasia for the instruction of youth. The manufactures of Hesse are linen cloths, hats, stockings, gloves, paper, goldsmiths' ware, and at Cassel a beautiful porcelain is made. They have also the finest wool in Germany; but are reproached for want of industry, in exporting it instead of manufacturing it themselves.

Cassel, the capital city of the landgraviate of Hesse Cassel, is divided into the old and new high towns. The new town is best built, the houses being of stone, and the streets broad. The houses of the old town, which is within the wall, are mostly of timber, but the streets are broad, and the market-places spacious. The place is strongly, but irregularly fortified. It contains about 32,000 inhabitants, of whom a considerable proportion are French protestants. These have established several manufactures, particularly in the woollen branch.

Darmstadt has a handsome castle, where its prince generally resides. Marpurg is a strong and considerable town, seated in a pleasant country, on the river Lohn. It has an university, a castle, a palace, a handsome square, and a magnificent town-house.

The county of Hanaw is exceedingly fertile in corn, wine, and fruits; yielding also salt springs, with some copper, silver, and cobalt. It is populous, and has flourishing trade and manufactures. Its capital of the same name, is pleasantly situated on the river Kenzig, near its confluence with the Maine. The river divides it into the new and old towns, both of which are fortified. The new town, which was built by the French

and Flemish refugees, is regular and handsome. The castle, in which the counts used to reside, and which stands in the old town, is fortified, and has a fine flower-garden, with commodious apartments, but makes no great appearance. Here is an university, with several manufactures; particularly of that of rolled tobacco, a very considerable trade.

Frankfort on the Maine, where the emperors were formerly elected, is a handsome, strong, and rich place, and has a vast deal of commerce. Here the Golden Bull is preserved, which is the original of the fundamental laws of the empire. It is seated on a fine fertile plain, and well fortified, with a double ditch, bastions, redoubts, and ravelines. The streets are remarkably wide, and the houses handsomely built. It has great conveniency for carrying on an extensive trade with the other parts of Germany, by means of the navigable river that runs through it. The fair of Frankfort is one of the most celebrated in Europe. It is held twice a-year, in spring and autumn, and lasts each time 14 days or two weeks; the first of which is called the week of acceptance, and the second the week of payment. These fairs are famous for the sale of all kinds of commodities, but particularly for the immense quantity of curious books, no where else to be found, and whence the booksellers throughout Europe used to furnish themselves.

Nassau Siegen is in general a mountainous and woody country, with some arable and pasture land, and a good breed of cattle. Its manufactures are chiefly those of iron and steel, having an iron mine in the neigbourhood of Siegen. Nassau Dillenburg has not much arable land, but plenty of wood, good quarries of stone, some silver and vitriol, copper and lead, with stone of iron, for the working and smelting of which there are many forges and founderies in the country; and by these and by the sale of their iron, the inhabitants chiefly subsist.

The Palatinate breeds an abundance of cattle, and is well watered by the Rhine and the Neckar. The air is healthful, and the soil fruitful in corn, pasturage, wine, tobacco, and all sorts of pulse and fruits, particularly walnuts, chesnuts, and almonds. In the Rhine is found gold, the exclusive right of searching for which belongs to the elector.

Heidleburg, the capital of the lower electorate, is a considerable and populous town; but greatly reduced by the calamities it has suffered. It is noted for its great tun, which holds 800 hogsheads, and is usually kept full of Rhenish wine. Manheim has a very strong citadel, and a palace, where the elector palatine often resides.

Phillipsburg is very strong, being seated in the midst of a morass, and fortified with seven bastions and several advanced works.

Rhinefels is a strong fortress, which commands the navigation to a great extent of that river.

Treves is a very antient city, and stands on the Moselle, over which it has a fine stone bridge. The cathedral is a large building; and near it stands the elector's palace, which was, not long ago, rebuilt. Here are three collegiate and five parish churches, three colleges of Jesuits, thirteen monasteries and nunneries, an university, founded in 1472, a house of the Teutonic order, and another of that of Malta, with some remains of the

antient Roman theatre. The private houses are in general mean, and the city neither well fortified nor well inhabited.

Coblentz is an antient, handsome, strong town, seated at the confluence of the rivers Rhine and Moselle, in a fertile country, among mountains covered with vineyards. It is the usual residence of the electors of Treves. Over the Rhine is a bridge of 12 arches, built for the convenience of the inhabitants of Coblentz and the adjacent places. A ferry machine is constantly going from the city to the other side of the Rhine, where there is a little town and a strong castle, built on an eminence named the rock of honour. This machine is erected on 12 boats, in the form of a large square gallery, encompassed with balustrades; and carries a tall flag-staff, on which are displayed the arms of the electorate of Treves. It is put in motion by the ferryman's pulling a rope, which is fixed to a standard on each side the river. The castle appears to be almost inaccessible to an enemy, and entirely commands the city of Coblentz. The archbishop's palace stands at the foot of this rock, and the arsenal at a little distance.

Bonn is an antient and strong city, the usual residence of the elector of Cologne. It is of great consequence in time of war, because it is situated on the Rhine, in a place where it can stop every thing that comes down that river. It is well fortified by the elector, who has a fine palace and beautiful gardens in the city.

Cologne is an antient and celebrated town of Germany, in the diocese of that name, with an archbishop's see, and a famous university, seated on the river Rhine, in east longitude 6° 38', north latitude 50° 50'. In the time of the Romans, this city was called Colonia, Agrippina, and Ubiorum, because it was built by Agrippina, the wife of Claudius I. and mother of Nero; and because the Ubii inhabited this country on the Lower Rhine. In 755 it was an archbishopric, and in 1260 entered into the Hanseatic league. The university was established in 1388, by pope Urban VI. The city is fortified with strong walls, flanked with 83 large towers, and surrounded with three ditches; but these fortifications, being executed after the antient manner, could make but a poor defence at present. It lies in the shape of a half-moon, and is said to have 20 gates, 19 parishes, 37 monasteries, and 365 churches and chapels; but the streets in general are dirty, and badly paved; the windows of the houses are composed of small bits of round glass, and the inhabitants are but few for so large a place. It is inhabited mostly by papists: but there are also many protestants, who repair to the neighbouring town Mulheim, in the duchy of Berg, for public worship. Its trade, which is considerable, especially in Rhenish wine, is chiefly in the hands of protestants, and carried on by the Rhine. The ships with which they trade to the Netherlands are of a particular form, and considerable burden.

The clergy here are very numerous, and have large revenues. That of the archbishop is 130,000*l.* Baron Polnitz says, that though Cologne is one of the greatest cities, it is one of the most melancholy in all Europe; there being nothing to be seen but priests, friars, and students, many of whom beg alms with a song: and nothing to be heard but the ringing of bells; that there are very few families of quality; that the vulgar are very clownish, and that the noblemen of the chapter stay no longer

than their duty obliges them. Mr. Wright, in his travels, says, that the women go veiled; and that the best gin is that distilled from the juniper berries, which grow in this neighbourhood.

This city is, perhaps, the most remarkable of any in the world for the great number of precious relics it contains; of which the popish clergy, no doubt, make their advantage. In the church of St. Ursula, they pretend to show her tomb, and the bones of the 11,000 pretended virgin martyrs, though that story is entirely owing to a mistaken inscription. The heads of some of the imaginary martyrs are kept in cases of silver, others are covered with stuffs of gold, and some have caps of cloth of gold and velvet. Brevat says, he saw between four and five thousand skulls, decked with garlands and coronets, ranged on shelves. The canonesses of St. Ursula, who must be all countesses, have a handsome income. In their church they pretend to show three of the thorns of our Saviour's crown, and one of the vessels which contained the water that he converted into wine at the marriage of Cana. In the church of St. Gereron are 900 heads of Moorish cavaliers, said to have been in the army of Constantine before it was converted, and to have been beheaded for refusing to sacrifice to idols. Every one of the heads has a cap of scarlet, adorned with pearls. In the magnificent cathedral of St. Peter, the three wise men who came from the east to visit our Saviour are said to be interred. They lie in a large purple shrine, spangled with gold, set upon a pedestal of brass, in the midst of a square mausoleum, faced within and without with marble and jasper. It is opened every morning at nine o'clock, if two of the canons of the cathedral are present, when these kings or wise men are seen, lying at full length, with their heads bedecked with a crown of gold, garnished with precious stones. Their names, which are Gasper, Melchier, and Balthasar, are in purple characters, on a little grate, which is adorned with an infinite number of large rich pearls and precious stones; particularly an oriental topaz, as big as a pigeon's egg, and valued at above 30,000 crowns. Over against them are six large branches of silver, with wax candles, which burn night and day. The bones of these men, we are told, were brought to Constantinople by Helena, mother to Constantine, from thence to Milan by Eustorpius Rainold. In the Jesuits' college are the portraits of the first 13 generals of that order, with Ignaticus Loyola at their head; and in the church, which is the finest in Cologne, are many rich statues, an amazing quantity of fine silver plate, and the utensils for mass are all of gold, enriched with precious stones. In the Cordeliers' church is the tomb of the famous Duns Scotus, surnamed Doctor Subtilis, with this epitaph, "Scotia me genuit, Anglia me suscepit, Gallia me docuit, Cologne me tenet."

Cologne is a free imperial city, and, as such, has a seat and voice in the diets of the empire, and circle of the Lower Rhine. In those of the empire, it has the first place on the Rhenish bench. Towards the defence of the empire, its assessment is 825 florins; and towards the maintenance of the chamber-court, 405 rix-dollars, 721 kruitzers each term. Its militia consists of four companies of foot, who keep guard at the gates. It is governed by its own senate, in respect to civil matters and causes; but the criminal jurisdiction belongs to the elector and his chapter; and so jealous are the

inhabitants of him, that they will not permit him to stay in the city above three days at a time, nor to come into it with a large retinue. For this reason, the elector resides commonly at Bonn.

The Rhinegau is a beautiful district of the electorate of Mentz, situated on the Rhine, about three miles from the city of Mentz, and is so populous, that it looks like one entire town, intermixed with gardens and vineyards. The Rhine here grows astonishingly wide, and forms a kind of sea, near a mile broad, in which are several well wooded little islands. The Rhinegau forms an amphitheatre, the beauties of which are beyond all description.

At Walluf. the very high hills come nearly down to the river side; from thence they recede again into the country, forming a kind of half circle, the other end of which is 15 miles off at Rudesheim, on the banks of the Rhine. The banks of the river, the hills which form the circles, and the slopes of the great mountains, are thick sown with villages and hamlets. The white appearance of the buildings, and the fine blue slated roofs of the houses, playing amidst the various green of the landscape, have an admirable effect. In the space of every mile, as you sail down the river, you meet with a village, which, in any other place, would pass for a town. Many of the villages contain from 300 to 400 families: and there are 36 of them in a space of 15 miles long and six miles broad, which is the width of this beautiful amphitheatre. The declivities of all the hills and mountains are planted thick with vineyards and fruit-trees, and the thick woody tops of the hills cast a gloomy horror over the otherwise cheerful landscape. Every now and then, a row of rugged hills run directly down to the shore, and domineer majestically over the lesser hills under them. On one of these great mountains, just about the middle of the Rhinegau, you meet with Johannisberg, a village which produces some of the best Rhenish. Before this village is a pretty little rising, and near the banks of the river there is a very fine old castle, which gives unspeakable majesty to the whole landscape. Indeed, in every village you meet with some or other large building, which contributes very much to the decoration of the whole. This country is indebted for its riches to the semicircular hill, which protects it from the cold winds of the east and north, at the same time that it leaves room enough for the sun to exercise his benign influence. The groves and higher slopes of the hills make excellent pastures, and produce large quantities of dung, which, in a country of this sort, is of inestimable value.

The bank of the Rhine, opposite to the Rhinegau, is exceedingly barren, and this heightens the beauty of the prospect on the other side, by the contrast it exhibits; on this side, you hardly meet above three or four villages, and these are far distant from each other. The great interval between them is occupied by heaths and meadows, only here and there a thick bush affords some shade, and a few corn-fields among the villages enliven the gloomy landscape. The back ground of this country is the most picturesque part of it. It is formed by a narrow gullet of mountains, which diminish in perspective, between Rudesheim and Bingen. Perpendicular mountains and rocks hang over the Rhine in this place, and seem to make it the dominion of eternal night. At a

distance the Rhine seems to come out of the landscape, through a hole under ground; and it appears to run tediously, in order to enjoy its course through a pleasant country the longer. Amidst the darkness which covers this back ground, the celebrated Mouse Tower seems to swim upon the river. In a word, there is not any thing in this whole tract, that does not contribute something to the beauty and magnificence of the whole; or, if we may be permitted the expression, to make the paradise more welcome. As you sail along the Rhine, between Mentz and Bingen, the banks of the river form an oval amphitheatre, which makes one of the richest and most picturesque landscapes to be seen in Europe. The inhabitants of these regions are some of them extremely rich, and some of them extremely poor. The happy middle state is not for countries the chief product of which is wine; for, besides that the cultivation of the vineyard is infinitely more troublesome and expensive than agriculture, it is subjected to revolutions, which, in an instant, reduce the holder of land to the condition of a day-labourer. It is a great misfortune for this country, that, though restrained by law, the nobility are, through connivance of the elector, allowed to purchase as much land as they please. The peasant generally begins by running in debt for his vineyard; so that if it does not turn out well, he is reduced to day labour, and the rich man extends his possessions, to the great detriment of the country. There are several peasants here, who, having incomes of 30, 50, or 100 000 guilders a-year, have laid aside the peasant, and assumed the wine-merchant; but, splendid as their situation is, it does not compensate, in the eyes of the humane man, for the sight of so many poor people, with which the villages swarm. In order to render a country of this kind prosperous, the state should appropriate a fund to the purpose of maintaining the peasant in bad years, and giving him the assistance, which his necessities and his want of ready money may, from time to time, make convenient.

The inhabitants of the Rheingau are a handsome, and uncommonly strong race of men. You see, at the very first aspect, that their wine gives them merry hearts and sound bodies. They have a great deal of natural wit, and a vivacity and jocoseness which distinguish them very much from their neighbours. You need only compare them with some of these, to be convinced that the drinker of wine excels the drinker of beer and water, both in body and mind; and that the inhabitant of the south is much stouter than he who lives in the north; for though the wine drinker may not have quite as much flesh as he who drinks only beer, he has better blood, and can bear much more work. Tacitus had already observed this, in his treaties De moribus Germanorum. "The large and corpulent bodies of the Germans," says he, "have a great appearance, but are not made to last." At that time almost all the Germans drank only water; but the mere drinking of wine has effected a revolution in several parts of Germany, which makes the present inhabitants of those countries very different from those described by Tacitus. Black and brown hair is much more common here than the white, which made the Germans so famous in old Rome. "It will be easily imagined," says baron Reisbeck, "that the monks fare particularly well in so rich a country. We made a visit to the prelate of Erbach. These lordly monks, for so in every respect they are,

have an excellent hunt, rooms magnificently furnished, billiard tables, half a dozen beautiful singing women, and a stupendous wine cellar, the well ranged' batteries of which made me shudder. A monk, who saw my astonishment at the number of the casks, assured me, that, without the benign influence which flowed from them, it would be totally impossible for the cloister to subsist in so damp a situation."

Rudesheim, a rich village of the Rhinegau, situated about five miles from the city of Mentz, contains about 2500 inhabitants. The wine of this place is looked upon as, without comparison, the best of the Rhinegau, and consequently of all Germany. Baron Reisbeck says, he found it much more fiery than that of Hochheim; but that for pleasantness of taste there is no comparison betwixt them. The best Rudesheim like the best Hochheimer, sells upon the spot for three guilders the bottle. "You can," says our author, "have no tolerable wine here for one guilder, nor any very good for two; at least I should prefer the worst Burgundy I ever tasted to any Rudesheimer I met with either here or at Mentz for these prices. Indeed, the wine of our host (a rich ecclesiastic) was far better than any we could get at the inn. It stands to reason, that the same vintage furnishes grapes of very different degrees of goodness; but, besides this, it is in the Rhinegau as every where else; the best wines are generally sent abroad by the poor and middling inhabitants, and the worst kept for internal consumption; for the expence of the carriage being the same in both cases, strangers had much rather pay a double price for the good, than have the bad. It is only rich people, such as our host was, who can afford to keep the produce of their land for their own drinking. Upon this principle, I have eaten much better Swiss cheeses out of Switzerland than in it, and have drank much better Rhenish in the inns in the northern parts of Germany, than in the country where the vine grows. The position of the country also contributes to render the wine dearer than it would otherwise be. As the best grows in its more northern parts, the easy transport by the Rhine to Holland, and all parts of the world, raises its price above its real value. The place where the flower of the Rudesheim wine grows, is precisely the neck of land, formed by the winding of the Rhine to the north, after it has run to the westward from Mentz hither. This neck, which is a rock almost perpendicular, enjoys the first rays of the rising, and the last of the setting sun. It is divided into small low terraces, which are carried up to the utmost top of the hill, like steep stairs; these are guarded by small walls and earthen mounds, which are often washed away by the rain. The first wine was brought hither from France, and they still call the best grape the Orleannois. They plant the vine stocks very low, scarce ever more than four or five feet high. This way of planting the vine is favourable to the production of a great deal of wine, but not to its goodness; as the phlegmatic and harsh parts of it would certainly evaporate more, if the sap was refined through higher and more numerous canals. This is undoubtedly the reason why every kind of Rhenish has something in it that is harsh, sour, and watery. The harvest of the best vineyards, which are the lower ones, in the above-mentioned neck of land, is often bought beforehand, at the advanced price of some ducats, by Dutch and other merchants. It must be a very rich stock to yield above four measures of wine. You may easily imagine, that

the cultivation of vineyards must be very expensive in this country, as the dung, which is extremely dear, must be carried up to the top of the mountains on the peasant's shoulders.

The archbishopric and electorate of Mentz lies on the banks of the river Mayne, between the electorate of Triers, on the west; the Palatinate, on the south; Franconia, on the east; and the Wetteraw, on the north. It is about 60 miles in length from north-east to south-west, and about 50 in breadth. A considerable part of the elector's revenue arises from the toll on the Rhine and the Mayne, and from the tax on the excellent wines produced in this country.

Mentz, a considerable town in the circle of the Lower Rhine, and capital of the electorate of the same name, is situated on the Rhine, near its confluence with the Mayne, 20 miles north-west of Worms, 15 west of Frankfort, and 75 east of Triers; in east longitude 8° 20, north latitude 49° 51'.

This city claims a right to the invention of the art of printing. Here is a very beautiful quay along the river, defended by several works, well fortified with cannon. That part of the city which extends towards the river is most populous. The best vineyards for Rhenish wine being in this neighbourhood, Mentz has a flourishing trade in that commodity more particularly; and its commerce is the brisker, by reason that all the merchandize that passes up and down the Rhine, stops in its harbour to change bottoms.

The northern part of the city, in which the archbishop resides, is full of very regular buildings. Here are three regular streets, called Blerchen, which run parallel to each other from the banks of the Rhine to 600 yards within the city, and are cut almost regularly by very pretty cross streets. The archbishop's palace has a most commanding view of these streets, the Rhine, and the Rhinegau. There are also some good buildings in the old part of the city. The market of beasts is extremely well worth seeing, and you here and there meet with other agreeable spots. The market in the middle of the town, though not regular, is one of the prettiest places in Germany. The cathedral is well worth notice. It is an immense large old Gothic building, the spire of which was struck with lightning about 20 years ago, and entirely laid in ashes. As it was made of a forest of wood, it burned 14 hours before it was entirely consumed. To prevent these accidents for the future, the chapter had the present one built to the same height in stone, an undertaking which cost them 40,000 guilders, or 4000*l.* It is a great pity that it is overloaded with small ornaments; and a still greater, that this wonderful edifice is so choaked up with shops and houses, as to be hardly more than half visible. As, however, houses and shops are very dear in this part of the town, one cannot be very angry with the chapter for choosing rather to make the most of its ground, than to show off the church to the best advantage. The rent of a shop and a single room to live in is 150 guilders, or 15*l.* per annum, in this part of the town. There is hardly another church in Germany of the height of this cathedral; and the inside of it is decorated with several magnificent monuments of princes and other personages. Besides the cathedral, the city of Mentz contains several other churches, in the modern

stile, very well worth seeing. St. Peter's and the Jesuit's church, though both too much loaded with ornaments, are among this number. The church of the Augustines, of which the inhabitants of Mentz are so proud, is a master-piece of bad taste; but that of Ignatius, though little is said about it, would be a model of the antique, if here, likewise, there had not been too much ornament lavished. Upon the whole, the palaces of the noblesses want that noble simplicity which alone constitutes true beauty and magnificence. In another century, the externals of the city will be quite changed. The late prince built a great deal, and the present has a taste for the same sort of expence. The monks and governors of hospitals also have been forced to rebuild their houses; so that when a few more streets are made broader and straighter, the whole will have no bad appearance. The inhabitants, who, together with the garrison, amount to 30,000, are a good kind of people; and, like all the catholics in Germany. make great account of a good table. Their faces are interesting, and they are not deficient either in wit or activity.

There are few cities in Germany, besides Vienna, which contain so rich and numerous a nobility as this does. There are some houses which have estates of 100,000 guilders, or 10,000*l.* a-year. The counts of Bassenheim, Schonborn, Stadion, Ingelheim, Elz, Ostein, and Walderdorf, and the lords of Dahlberg, Breteinbach, with some others, have incomes of from 30,000 to 100,000 guilders. Sixteen or eighteen houses have from 15,000 to 30,000 guilders annual revenue.

The nobility of this place are said to be some of the oldest and most untainted in Germany. There are amongst them many persons of extraordinary merit, who join uncommon knowledge to all the duties of active life. Upon the whole, they are far superior to the greater part of the German nobility. Their education, however, is still too stiff. The first minister of the court was refused admittance into their assemblies, for not being sufficiently noble; and they think they degrade themselves by keeping company with bourgeois.

The clergy of this place are the richest in Germany. A canonry brings in 3,500 Rhenish guilders in a moderate year. The canonry of the provost brings him in 40,000 guilders a-year; and each of the deaneries is worth 2600 guilders. The income of the chapter altogether amounts to 300,000 guilders. Though it is forbidden by the canons of the church for any one to have more than a single prebend, there is not an ecclesiastic in this place but what has three or four: so that there is hardly a man amongst them who has not at least 8000 guilders a-year. The last provost, a count of Elts, had prebends enough to procure him an income of 75,000 guilders. Exclusive of the cathedral, there are several other choirs, in which the canonries bring in from 1200 to 1500 guilders a-year. To give an idea of the riches of the monasteries of this place, baron Reisbeck informs us, that, at the destruction of the Jesuits, their wine, which was reckoned to sell extremely cheap, produced 120,000 rix dollars. A little while ago the elector abolished one Carthusian convent and two nunneries, in the holy cellars of which there was found wine worth at least 500,000 rix-dollars. "Notwithstanding this great wealth," continues our author, "there is not a more regular clergy in

all Germany. There is no diocese in which the regulations made by the council of Trent have been more strictly adhered to than they have here; the archbishops have made a particular point of it, both at the time of the Reformation and ever since. One thing, which greatly contributes to keep up discipline, is the not suffering any priest to remain in the country, who has not fixed and stated duties, and a revenue annexed to them.

Most of the irregularities in Bavaria, Austria, and other countries, arise from abbots, who are obliged to subsist by their daily industry, and any masses which they can pick up. These creatures are entirely unknown here. The theological tenets of this court are also purer than those of any other ecclesiastical prince in Germany. I was pleased to see the bible in the hands of so many common people, especially in the country. I was told that the reading of it was not forbidden in any part of the diocese; only persons were enjoined not to read it through without the advice of their confessors. For a long time superstition has been hunted through its utmost recesses; and, though it is not quite possible to get entirely clear of pilgrimages and wonder-working images, you will meet with no priest bold enough to exorcise, or preach such nonsense as we hear in the pulpits of other German churches."

Though the trade of this place has been constantly on the increase for these 18 or 20 years past, yet it is by no means what it ought to be from the situation and other advantages. The persons here who call themselves merchants, and who make any considerable figure, are, in fact, only brokers, who procure their livelihood at the expence of the country or territory round, or who act for the merchants of Frankfort. A few toy-shops, five or six druggists, and four or five manufacturers of tobacco, are all that can possibly be called traders. There is not a banker in the whole town; and yet this country enjoys the staple privilege, and commands, by means of the Mayne, Neckar, and Rhine, all the exports and imports of Alsatia, the Palatinate, Franconia, and a part of Suabia and Hesse, as far as the Netherlands. The port too is constantly filled with ships, but few of them contain any merchandize belonging to the inhabitants of the place.

Nuremberg, an imperial city, capital of a territory of the same name, is situated in east longitude 11°, north latitude 47° 30'. It stands on the Regnitz, over which it has several bridges, both of wood and stone, at the bottom of a hill, 60 miles from Augsburg, 87 from Munich, 46 from Wurtzburg, and 50 from Ratisbon; and it is thought by some to be the Segodunum, and by others the Castrum Noricum, of the antients.

The city has derived its name from the hill, upon which stands this castle, called in latin Castrum Noricum, round which the city was begun to be built, and where the emperors formerly lodged; and here they lodge still, when they pass by that city. They there preserve, as precious relics, the crown, sceptre, clothes, buskins, and other ornaments of Charlemagne, which served also the emperor Leopold, when he went thither after his election, to receive the homage of the city. The small rivers Regnitz and Schwarzack, which pass by its walls, furnish the inhabitants, besides other advantages, with the means of making all sorts of stuffs, dyes, and other manufactures, and toys, which are carried and sold even in the Indies.

It is a large and well built town, but not very populous. Its fortifications are a double wall, flanked with towers mounting cannon, and a deep ditch. The magistrates and most of the inhabitants are Lutherans. There are a great many churches and chapels in it. In that of St. Sebald is a brass monument of the saint; and a picture, representing the creation of the world, by the celebrated Albert Durer, who was a native of the town; but the finest church in the town is that of St. Giles. In that of the Holy Ghost are kept most of the jewels of the empire, together with the pretended spear with which our Saviour's side was pierced, a thorn of his crown, and a piece of the manger wherein he was laid. Here are also a great many hospitals, one in particular for foundlings, and another for pilgrims, with a gymnasium, an anatomical theatre, a granary, a fine public library, the old imperial fortress or castle, some remains of the old citadel of the burgraves of Nuremberg, several latin schools, an academy of painting, a well furnished arsenal, a Teutonic house, in which the Roman catholic service is tolerated, and a mint.

Mr. Keyslar says there are upwards of 500 streets in it, about 140 fountains, 16 churches, 44 religious houses, 12 bridges, 10 market-places, and 25,000 inhabitants; and that its territories, besides the capital and four other towns, contain above 500 villages, and about 160 mills on the Regnitz. The trade of this city, though upon the decline, is still very great, many of its manufactures being still exported to all parts of the world; among which we may reckon a great variety of curious toys, in ivory, wood, and metal, already mentioned. The city has also distinguished itself in the arts of painting and engraving. When the emperor Henry VI. assisted at a tournament in Nuremberg, he raised 38 burghers to the degree of nobility, the descendants of whom are called patricians, and have the government of the city entirely in their hands: the whole council, except eight masters of companies, who are summoned only on extraordinary occasions, consisting of them. Among the fine brass cannon in the arsenal, is one that is charged at the breech, and may be fired eight times in a minute: and two that carry balls of 90 pounds. The city keeps in constant pay seven companies, consisting each, in time of peace, of 100 men, but, in time of war, of 185; two troops of cuirassiers, each consisting of 85 men, and two companies of invalids. There are also 24 companies of burghers, well armed and disciplined. On the new bridge, which is said to have cost 100,000 guilders, are two pyramids, on the top of one of which is a dove with an olive branch in her bill, and on the other an imperial black eagle. Music also flourishes greatly in Nuremberg; and those who delight in mechanic arts and manufactures cannot any where better gratify their curiosity. As an imperial city, it has a seat and voice at the diets of the empire and circle, paying to the chamber of Wetzlar 812 rix-dollars each term. The territory belonging to the city is pretty large, containing, besides two considerable forests of pine, called the Sibald and Laurence forests, several towns and villages.

We have mentioned already that certain families, called patricians, to the exclusion of the rest, possess the offices of the senate. They are composed of 42 persons, over which two castellans, or perpetual senaschals, preside, the first of whom has his residence in th castle. These castellans assemble sometimes in the castle, with five or six of the

chief members, to hold a secret council; and, as this city glories in being one of the first which embraced Lutheranism, it preserves the privilege of that in civil matters, not admitting any catholics to the magistracy or freedom of the town; the catholics there having the liberty only of remaining under the protection of the rest, and performing their religious worship in a commandery of Malta, and this but at certain hours, not to disturb the Lutherans, who likewise assemble there, although in possession of all the other churches.

This city is particularly noted for its antiquity, grandeur, fortifications, its triple walls of hewn stone, its large and deep moat, its fine houses, large churches, its wide streets, always clean, and for its curious and large library, and its magazine, stored with every thing proper for its defence.

Wurtzburg is a large and handsome city, one of the most considerable in Franconia. It is defended with good fortifications, and has a magnificent palace. Here is a handsome hospital, in which are generally about 400 poor men and women. The castle is at a small distance from the city, and commands it as it stands upon an eminence. It communicates with the city by a stone bridge, on which are 12 statues, representing as many saints. The arsenal and cellars of the bishop deserve the attention of the curious. Here is also an university, founded in 1403.

Bamberg is large and handsome. The country round it produces plenty of corn, fruits, and liquorice. The marquisate of Anspach is fertile, and interspersed with woods, which render it agreeable for hunting. Anspach, a small but pretty town, is well built, and has several churches. It is walled round, but has no other fortifications. In the palace there is a remarkable cabinet of curiosities.

Aichstat is remarkable for a curious piece of workmanship, called the Sun of the Holy Sacrament, which is in the church: it is of massy gold, of great weight, and is enriched with 350 diamonds, 1400 pearls, 250 rubies, and other stones.

Bareith is a flourishing college belonging to the margrave of Brandenburg Bareith. Coburg has a famous college, fort, and castle. Culemback has good fortifications, and is seated on the confluence of two branches of the Mayne.

The inhabitants of the electorate of Bavaria are strong and laborious, exercising themselves in shooting with rifle barrel muskets at a mark, in order to render themselves expert in war.

Munich is a town of Germany, capital of the whole duchy of Bavaria, and the residence of the elector. It stands on the Iser, 70 miles south of Ratisbon, and 214 west of Vienna, being one of the most pleasant and populous cities of Germany for its bigness. The number of its inhabitants is said to be about 40,000. Having been built at first on a spot of ground belonging to a convent, it had from thence in Germany the name of Munchen, i. e. Monk's town, and a monk for its arms. The elector's palace is a very grand structure, consisting of several courts, furnished and adorned in the most magnificent manner, with tapestry, gilding, sculpture, statues, and paintings. It contains an amazing collection of jewels, antiquities, and curiosities. The great hall is 118 feet long and 52 broad; and the staircase leading to it, from top to bottom,

of marble and gold. In the hall of antiquities are 354 busts and statues of jasper and porphyry, brass and marble. In this palace is also a library, containing a vast collection of books, and many valuable manuscripts, in most languages, antient and modern: and a chamber of rarities, among which is the picture of a bravo or assassin, who is said to have committed 345 murders with his own hand, and to have been accomplice in or privy to 400 more. The treasury in the chapel contains also a vast number of pictures, precious stones, medals, vessels of gold and silver, &c. Among other curiosities, here is a cherry stone with 140 heads distinctly engraven upon it. The garden of the palace is also very fine, and it is said a secret passage leads from it to all the churches and convents in the town. There is a great number of other fine buildings in the city, public and private, particularly the riding-house, town-house, opera-room, the Jesuits' college, the large edifices for tournaments, the churches, convents, fountains, &c. Its manufactures are those of silk, particularly velvet, woollen cloths, and tapestry; and it has two annual fairs, at which great quantities of salt, wine, &c. are sold. The streets are broad and regular, and most of the houses well built, and painted on the outside. The market-place is extremely beautiful. Not far from Munich are four other palaces, with fine gardens belonging to the elector; viz. those of Sleisheim, Nymphenburg, Dauchau, and Starenberg. The first and last are about three leagues from the capital; the second about half a league, and the third about two, at a market town of the same name.

Austria is one of the principal provinces of the empire of Germany toward the east; from which situation it takes its name Oost-ryck, in the German language signifying the East Country. It is bounded on the north by Moravia; on the east by Hungary; on the south by Stiria; and on the west by Bavaria. It is divided into Upper and Lower. Upper Austria is situated on the south, and Lower Austria on the north side of the Danube. Vienna, the capital, is in the Upper Austria, which contains several other very considerable towns. The country is very fertile, has a great many riches, and produces vast quantities of sulphur.

Upper Austria, properly so called, has throughout the appearance of a happy country; here are no signs of the striking contrast between poverty and riches which offends so much in Hungary. All the inhabitants, those of the capital only excepted, enjoy that happy mediocrity which is the consequence of a gentle and wise administration. The farmer has property: and the rights of the nobility, who enjoy a kind of lower judicial power, are well defined. The south and south-west parts of the country are bounded by a ridge of hills, the inhabitants of which enjoy a share of prosperity unknown to those of the interior parts of France. There are many villages and market towns, the inhabitants of which, having bought themselves off from vassalage, are now their own governors, and belong some of them to the estates of the country. The cloisters, the prelates of which belong to the estates of the country, are the richest in Germany, after the immediate prelacies and abbacies of the empire. One of the great convents of Benedictines is worth upwards of 4000 millions of French livres, half of which goes to the exchequer of the country.

Lower Austria yearly exports more than 2,000,000 guilders worth of wine to Moravia, Bohemia, Upper Austria, Bavaria, Saltzburg, and part of Stiria, and Carinthia. This wine is sour, but has a great deal of strength, and may be carried all over the world without danger; when it is 10 or 20 years old it is very good. This country is very well peopled. Mr. Schlosser, in his political journal, which contains an account of the population of Austria, estimates that of this country at 2,100,000 men. The revenue of this country is about 14,000,000 of florins; of which the city of Vienna contributes about five, as one man in the capital earns as much as three in the country.

The southern parts of Austria are covered with hills, which rise gradually from the banks of the Danube to the borders of Stiria, and are covered with woods. They lose themselves in the mass of mountains which run to the south of Germany, and stretch through all Stiria, Carniola, Carinthia, and Tyrol, to the Swiss Alps, and are probably, after Savoy and Switzerland, the highest part of the earth. The inhabitants of this extensive ridge of mountains are all very much alike; they are a strong, large, and, the Goilres excepted, a very handsome people.

The characteristic of the inhabitants of all this country is striking, bigotry united with sensuality. You need only see what is going forward here, to be convinced that the religion taught by the monks is as ruinous to the morals as it is repugnant to Christianity. The Cicibeons accompany their married women from their bed to church, and lead them to the very confessional. The bigotry of the public in the interior parts of Austria, which, from the mixture of gallantry with it, is still to be found even amongst people of rank, degenerates among the common people into the grossest and most abominable buffoonery. The Windes, who are mixed with the Germans in these countries, distinguish themselves by a superstitious custom, that does little honour to the human understanding, and would be incredible, if we had not the most unequivocal proofs of the fact before our eyes. Many years ago, they set out, in company with some Hungarian enthusiasts, to Cologne, on the Rhine, which is about 120 German miles, to cut off the beard of a crucifix there. Every seven years this operation is repeated, as in this space of time the beard grows to its former length. The rich persons of the association send the poorer ones as their deputies, and the magistrates of Cologne receive them as ambassadors from a foreign prince. They are entertained at the expence of the state, and a counsellor shows them the most remarkable things in the town. This farce brings in large sums of money at stated times, and may therefore be thought to deserve political encouragement; but still, however, it is the most miserable and meanest way of gain that can be imagined. These Windes have alone the right to shave the image of our Saviour, and the beard grows only for them. They firmly believe that if they did not do this service to the crucifix, the earth would be shut to them for the next seven years, and there would be no harvest. For this reason they are obliged to carry the hair home with them, as a proof of having fulfilled their commission, the returns of which are distributed amongst the different communities, and preserved as holy reliques. The imperial court has for a long time endeavoured in vain to prevent this emigration, which deprives agriculture of so many useful hands. When the Windes could not go

openly, they would go clandestinely. At length the court thought of the expedient of forbidding the regency of Cologne to let them enter the town. This happened some years ago, and the numerous embassy was obliged to beg its way back again, without the wonderful beard; which, without doubt, the Capuchins, to whom the crucifix belonged, used to put together from their own. The trade which the monks carry on with holy salves, oils, &c. is very considerable; a prohibition of the court, lately published, has rather lessened it, but it cannot be entirely suppressed till next generation. It is now carried on secretly, but perhaps to nearly as great an amount as formerly.

Vienna, the capital of the circle of Austria, in Germany, and of the whole German empire, is the place where the emperor resides. The city itself is not of very great extent; nor can it be enlarged, it being limited by a very strong fortification; but it is very populous. The streets in general are narrow and the houses built high. Some of the public buildings are magnificent; but they appear externally to no great advantage, on account of the narrowness of the streets. The chief of them are the imperial palace, the library, and the museum, the palaces of the princes Lichtenstein, Eugene, &c. Vienna was twice ineffectually besieged by the Turks; namely, in 1589 and 1683. At the latter period, the siege was raised by John Sobieski, king of Poland, who totally defeated the Turkish army before the walls of this place. There is no great danger that Vienna will ever again be subjected to the inconvenience of a siege. Yet in case this should happen, a measure has been taken, which will prevent the necessity of destroying the suburbs; namely, no houses without the walls are allowed to be built nearer to the glacis than 600 yards; so that there is a circular field of that breadth all round the town, which, exclusive of the advantage above mentioned, has a very beautiful and salutary effect. These magnificent suburbs, and the town together, are said to contain above 300,000 inhabitants; yet the former are not near so populous, in proportion to their size, as the town; because many houses in the suburbs have extensive gardens belonging to them, and many families, who live during the winter within the fortifications, spend the summer in the suburbs. The cathedral is built of free-stone, is 114 yards long, and 48 broad, and the steeple is 447 feet high. Instead of a weather-cock, there was a Turkish crescent, in memory of the siege in 1589; but after the second siege, in 1683, they changed it for a golden cross, which three months after was thrown down by a storm. At present there is a black spread eagle, over which is a gilded cross. Joining this church is the archbishop's palace, the front of which is very fine. The university had several thousand students, who, when this city was besieged, mounted guard, as they did also in 1741. Besides this, there is the academy of Lower Austria; and the archducal library is much frequented by foreigners, as it contains above 100,000 printed books, and 10,000 manuscripts. The academy of painting is remarkable for the fine pictures it produces. The archducal treasury, and the cabinet of curiosities of the house of Austria, are great rarities. The inhabitants in general live in a splendid manner; and the people of distinction have all sorts of wines at their tables, which they are very free with to foreigners. There is a sort of harbour on the Danube, where there are magazines of naval stores, and ships have been fitted out to serve on that river

against the Turks. Vienna is an archbishop's see. It is seated at the place where the river Vienna or Uien falls into the Danube, 30 miles west of Presburg, 550 north north-east of Rome, 520 south-east by south of Amsterdam, 565 east of Paris, and 680 east-south-east of London. East longitude 16° 28', north latitude 48° 13'.

Stiria is a mountainous country, yet there is a great deal of land fit for tillage, and the soil is so good that the inhabitants never want corn. It contains mines of very good iron, whence the arms made there are in great esteem. The women have swellings on their throats, which they call bronchoceles The men are very simple, and zealous worshippers of the Virgin. A similar character to that of Stiria applies to the soil of Carniola and Carinthia. The inhabitants of the two latter are of Scythian or Sclavonian origin, and the lower classes are said to converse chiefly in the Wendish or Vandalic language.

Tyrol, a country of Germany in the circle of Austria, under which may be included the territories belonging to the bishops of Brixen, Trent, and Chur, Teutonic order, and the prince of Deitrichstein, the Austrian seigniories before the Arlberg, and the Austrian districts in Suabia. It is 150 miles in length, and 120 in breadth, and contains 28 large towns.

The face of the country is very mountainous. Of these mountains, some have their tops always buried in snow; others are covered with woods, abounding with a variety of game; and others are rich in metals, and marble of all colours. Of the lower, some yield plenty of corn, others wine, and woods of chesnut-trees. The valleys are exceeding fertile also and pleasant. In some places considerable quantities of flax are raised, in others there is a good breed of horses and horned cattle; and, among the mountains, abundance of chamois and wild goats. In this country are also found precious stones of several sorts; as granates, rubies, amethysts, emeralds, and a species of diamonds agates, cornelians, chalcedonies, malachites, &c. nor is it without hot baths, acid waters, salt pits, mines of silver, copper, and lead, mineral colours, alum, and vitriol. The principal river of Tyrol is the Inn, which, after traversing the country, and receiving a number of lesser streams into it, enters Bavaria, in which, at Passau, it falls into the Danube. The men here are very tall, robust, and vigorous; the women also are stout, and generally fair; and both sexes have a mixture of the Italian and German in their tempers and characters. As there is little trade or manufacture in the country, except what is occasioned by the mines and salt-works, many of the common people are obliged to seek a subsistence elsewhere. A particular kind of salutation is used all over Tyrol. When a person comes into a house, he says, "Hail! Jesus Christ:" the answer is, "May Christ be praised, and the Holy Virgin his mother." Then the master of the house takes the visitor by the hand. This salutation is fixed up in a print at all the doors, with an advertisement tacked to it, importing that pope Clement XI. granted 100 days indulgence, and a plenary absolution to all those who should pronounce the salutation and answer, as often as they did it. The emperor has forts and citadels so advantageously situated on rocks and mountains all over the country, that they command all the valleys, avenues, and passes that lead into it.

The inhabitants, however, to keep them in good humour, are more gently treated, and not so highly taxed as those in other hereditary countries. As to the states, they are much the same in this country as in the other Austrian territories, except that the peasants here send deputies to the diets.

Tyrol came to the house of Austria in the year 1363, when Margaret, countess thereof, bequeathed it to her uncles, the dukes of Austria. The arms of Tyrol are an eagle gules, in a field argent. The counts of Trap are hereditary stewards; the lords of Glosz, chamberlains; the princes of Trautson, marshals; the counts of Wolkenstein, masters of the horse and carvers; the house of Spaur, cup-bearers; the counts of Kungl, sewers and rangers; the counts of Brandis, keepers of the jewels; the house of Welsperg, purveyors and staff-bearers; and the counts of Coalto, falconers. Besides the governor, here are three sovereign colleges, subordinate to the court at Vienna, which sit at Inspruck, and have their different departments. Towards the expences of the military establishment of this country, the proportion is 100,000 florins yearly; but no more than one regiment of foot is generally quartered in it.

Tyrol is divided into six quarters, as they are called; namely those of the Lower and Upper Inthal, Vintsgow, Etch, Eisack, and Pusterthal.

Trent, a city of Germany, and capital of the bishopric of that name, is a very antient place, and stands in a fertile and pleasant plain, in the midst of the high mountains of the Alps. The river Adige washes its walls, and creeping for some time among the hills, runs swiftly into Italy. Trent has three considerable churches, the principal of which is the cathedral: this is a regular piece of architecture. The church of St. Maria Major is all of red and white marble; and is remarkable for being the place where the famous council of Trent was held, whose decisions are now the standing rule of the Romish church. East longitude 11° 5', north latitude 46° 10'.

Suabia, a circle of Germany, bounded on the north by the circle of Franconia and that of the Lower Rhine; on the west by the circle of the Lower Rhine and Alsace; on the south by Switzerland; and on the east by the circle of Bavaria. Of all the circles of the empire Suabia is the most divided; it contains four ecclesiastic and 13 lay principalities, 19 independent prelacies and abbeys, 26 earldoms and lordships, and 31 free cities. The prime directors of the circle, as they are termed, are the bishop of Constance and the duke of Wurtemberg. The duke has the sole direction of all that relates to war.

The mixture of the various forms of government and religious sects; the oppression exercised by the great on the poor; the game constantly played by the emperor, who possesses many pieces of detached country in Suabia, which depend not on the circle, and can, in consequence of his privileges as archduke of Austria, extend his possessions in it by several ways; are circumstances which give the cultivation of the country, and the character of the inhabitants, a most extraordinary cast. In several of the post towns where you stop, you see the highest degree of cultivation in the midst of the most savage wildness; a great degree of knowledge and polish of manners, mixed with the grossest ignorance and superstition; traces of liberty, under the deepest oppression;

national pride, together with the contempt and neglect of the native country; in short, all the social qualities in striking contrast and opposition to each other. Those parts of Suabia which belong to the great potentates, such as Wurtemberg, Austria, and Baden, are certainly the most improved. The whole of Suabia may comprehend about 900 German square miles, and 2,000,000 of people. More than half of these are subjects of the three above-mentioned princes, though they are not proprietors of near one half of the land.

Saltzburg is an archbishopric of Germany, in the circle of Bavaria, bounded on the east by Stiria and Upper Austria; on the west by the county of Tyrol; on the north by the duchy of Carinthia and the bishopric of Brixen. It is said to be about 100 miles from east to west, and upwards of 60 from north to south. With respect to the soil, it is very mountainous, yielding, however, excellent pasturage; and, in consequence of that, abounding in cattle and horses, remarkable for their mettle and hardiness. This country is particularly noted for the great quantities of salt it produces, and its strong passes and castles. Here are also considerable mines of gold, silver, copper, lead, iron, and lapis caliminaris, with quarries of marble, and a natural hot bath. The principal rivers are the Salza, the Inn, the Ens, and Muer; which, as well as the lakes and other streams, are well stored with fish. The peasants are all allowed the use of arms, and trained to military duty. There are no nobles in the country, and most of the lands belong to the clergy.

Saltzburg, the capital of the archbishopric of the same name, and which takes its own from the river Salza, on which it stands, and over which it has a bridge, is a very handsome place, well fortified, and the residence of the archbishop. The houses are high, and all built of stone: the roofs are in the Italian taste, and you may walk upon them. The castle here is very strong, and is strongly garrisoned, and well provided with provisions and warlike stores. The archbishop's palace is magnificent: and in the area before it is a fountain, esteemed the largest and grandest in Germany. The stables are very lofty; and the number of horses usually kept by the archbishop is said to be upwards of 200. The city, of which one part stands on a steep rock, is well built, but the streets are narrow and badly paved. Besides the above-mentioned, there are two other stately palaces belonging to the archbishop, one of which is called Nuebau, and the other Mirabella. The latter of these has a very beautiful garden; and the number of trees in the orangery is so great, that Mr. Keyslar tells us, 20,000 oranges have been gathered from them in one year. The river Salza runs close by the walls of this garden. There are a great many other fine structures in the city, public and private, such as palaces, monasteries, hospitals, and churches. In the cathedral dedicated to St. Rupert, the apostle of Bavaria, and a Scotchman by birth, all the altars are of marble of different kinds, and one of the organs has above 3200 pipes. The whole structure is extremely handsome. It is built of free-stone, in imitation of St. Peter's at Rome. The portico is of marble, and the whole is covered with copper. Before the portico there is a large quadrangular place, with arches and galleries, in which is the prince's residence; and there is a statue of Peter. In the middle of this place is an image of the

Virgin in bronze; it is fine, but of an unnatural size. There are large areas, encompassed with handsome buildings on both sides of the church. In the middle of that which is to the left, there is a most magnificent fountain of marble, and some valuable figures of gigantic size. There is likewise a fountain to the right, but it is not to be compared with the former one, and the Neptune of it makes but a pitiful figure. This town contains many more excellent buildings and statues, which remind one that the borders of Italy are not far distant. The winter and summer riding schools here are noble structures. The university was founded in 162, and committed to the care of the Benedictines. Besides it, there are two colleges, in which the young noblemen are educated. East longitude 33°, north latitude 47° 5'.

Ratisbon is an antient, large, rich, handsome, and strong city, in Bavaria, free and imperial, with a bishop's see, whose bishop is a prince of the empire. It is called by the Germans Regensburg, from the river Regens, which runs under a fine stone bridge, and throws itself into the Danube below the city; and the rivers Luber and Nab mix with it above the city. The French call it Ratisbon, in imitation of the Latin; it hath formerly been subject to the kings of Bavaria, who made it the place of their residence; but it was declared free by the emperor Frederic I. which does not, however, hinder the dukes of Bavaria from dividing the toll with the citizens, according to an agreement between them. These princes have also the criminal jurisdiction, for which the magistrates of the city pay them homage. It is the very first city of the bench of Suabia, and contains within its walls five different free states of the empire; namely, the bishop, the abbot of St. Emmeran, the abbesses of Low and High Munster, and the city. The inhabitants of Ratisbon have the privilege not to be cited before other tribunals, unless for actions above 400 florins. The senate is composed of 17 members, and there is a council of 10, which is charged with the government of the state. The citizens have a right to elect a chief, who judges of the affairs of police. The catholics have the exercise of their religion in the cathedral church, and others, and the Lutherans in three churches, which they have built. The magistrates and offices of the city are all protestants; and it is to be remarked, that although there are about 22 catholic churches, yet there are a very few catholic citizens, the magistracy not allowing the freedom of the town to be given to catholics living there. As this city is large, elegant, and full of magnificent houses, it has been chosen many years for the place of holding the diet, upon account of the conveniency, to many neighbouring princes and states, of sending their provisions by land and water, without great expence. The town-house, in the hall of which the diet meets, is extremely magnificent. In the year 1740, however, when there was a war in Germany, the diet met at Frankfort on the Maine, till after the death of the emperor Charles VII. Provisions are very plentiful at Ratisbon in time of peace. The inhabitants have a good deal of trade, the river on which it stands being navigable, and communicating with a great part of Germany. It is 55 miles south-east of Nuremberg, 62 north of Munich, and 195 west of Vienna. East longitude 12° 5', north latitude 48° 59'.

Bohemia is subject to the house of Austria, and surrounded on every side with woods

and mountains as with a natural rampart. It is bounded on the east by Moravia and part of Silesia; on the north by Lusace and Upper Saxony; on the west by Franconia; and on the south by Bavaria. Although this kingdom is situated in the middle of Germany, and its king is an elector of the empire, it has, nevertheless, its particular assemblies, customs, and language, different from the Germans. It is one of the most elevated countries of Europe, for no rivers enter into it, though many have their source there; the chief of which are the Elbe, the Oder, the Vistula, and the Morava. The air is cold and unwholesome; for they have more epidemical diseases than in the neighbouring countries. There are mines of silver, copper, lead, and even some veins of gold. The capital city is Prague; the others are Guttenburg, Konigengretz, Pilsen, Czaslaw, Budweys, Egra, Glatz, Tabor, and a great number of others: for they reckon more than 100 cities, among which almost 40 have the title of Royal.

Prague, a city of Bohemia, and capital of the whole kingdom, is situated in 14° 40′ east longitude, 50° 5 of north latitude. It stands on both sides the Moldau, over which there is a bridge 700 feet long, built of large free-stone. The river, though of great breadth here, is nevertheless shallow, and not navigable. On both sides the bridge are several statues, and among others that of St. John of Nepomuck, whom king Wensel caused to be thrown from the bridge into the river, for venturing to reprove him upon some occasion; but in 1720, he was canonized as a saint, and is at present held in such veneration in Bohemia, that all other saints seem on his account to be forgotten. Near the bridge, which stands at the upper part of the city, the number of people is very great; but the further you go from thence, the more desolate you find every place. The city is about three miles long, and two broad; the number of its Christian inhabitants is said to be 70,000, and of Jews about 12,000. The principal branch of its trade consists in brewing of beer. It is divided into the Old and New towns, and that called the Small side; the former lying on the east side of the Moldau, and the latter on the west. The whole is about 12 miles in circumference. The fortifications are not of great importance, as it may be flanked and raked on all sides. However, the king of Prussia was not able to make himself master of it in the late war, though he almost destroyed it with his bombs, &c. It hath suffered greatly by sieges, and hath been often taken and plundered. The university was founded by Charles IV. in the year 1347. In 1409, when John Huss was rector of the university, there were no less than 44,000 students; and when the emperor Charles V. would have retrenched their privileges, 24,000 are said to have left it in one week, and 16,000 in a short time after. The Jews have the trade of this city almost entirely in their own hands. They deal in all sorts of commodities, especially the precious stones found in the Bohemian mines; and, by receiving all old fashioned things in payment, quite ruin the Christian handicrafts-men. In the year 1744, they narrowly escaped being expelled the kingdom, having been suspected of corresponding with the Prussians, when they made themselves masters of the city. The grand prior of the order of Malta, for Bohemia, Moravia, and Silesia, resides here; and the church and hospital of the Holy Ghost is the seat of the general and grand masters of the holy order of knights of the cross with the red star, residing in the above-mentioned countries, and

in Poland and Hungary. The houses of this city are all built of stone, and generally consist of three stories; but there are very few good buildings in it, and almost every one looks dirty. The cathedral, which is dedicated to St. Veit, is an old building, in which there are some pieces of excellent architecture, and many magnificent tombs of great men. There are 100 churches and chapels, and about 40 cloisters in the place. On Ratschin-hill, in Upper Prague, most of the nobility have houses, and the emperor a very magnificent palace, and a summer-house, commanding one of the finest prospects in the world. Here the tribunals of the regency meet; and the halls, galleries, and other apartments, are adorned with a multitude of noble pictures. The great hall, where the coronation feast is kept, is said to be the largest of the kind in Europe, next to that of Westminster. The castle stands on the above-mentioned mountain, called Ratschin or the White Mountain, and is very strong. From a window of this castle the emperor's counsellors were thrown, in 1618; but though they fell from a great height, yet they were not killed, nor indeed much hurt. On the same mountain stands also the archiepiscopal palace. In the new town is an arsenal, and a religious foundation for ladies, called the Free Temporal English Foundation, over which an abbess presides. In the lesser side or town, the counts Colloreds and Wallenstein have their magnificent palaces and gardens. The stables of the latter are very grand; the racks being of steel, and the mangers of marble, and a marble pillar between each horse; over each horse also is placed his picture, as big as life. Though the inhabitants of Prague in general are poor, and their shops but meanly furnished, yet, it is said, there are few cities where the nobility and gentry are more wealthy, and live in greater state. Here is much gaming, masquerading, feasting, and very splendid public balls, with an Italian opera, and assemblies in the houses of the quality every night. On the White Mountain, near the town, was fought the battle in which the protestants, with the elector Palatine, Frederic their king, were defeated. The lustres and drinking glasses made here of Bohemian crystal are much esteemed, and vended all over Europe. These crystals are also polished by the Jews, and set in rings, ear-pendants, and shirt-buttons. The chief tribunal consists of 12 stadtholders, at the head of whom is the great burgrave, governor of the kingdom and city, immediately under the emperor and chancery of Bohemia. Though the city of Prague is very ill built, it is pleasantly situated, and some of the prospects are beautiful, and the gardens and pleasure houses are excellent. The people, Reisbeck informs us, enjoy sensual pleasures more than those of Vienna, because they know better how to connect mental enjoyments with them. The numerous garrison kept in the place (9,000 men) contribute much to its gaiety and liveliness.

HUNGARY.

Hungary is a kingdom of Europe, the greatest part of which was anciently called Pannonia. It had the name of Hungary from the Huns, a Scythian or Tartar nation, who subdued it in the ninth century. It lies between 18° and 22° of E. Long. and between 45° and 49° of N. Lat. being bounded to the north by the Carpathian mountains,


TURKEY
in
EUROPE
and
HUNGARY
Hungarian Miles 15 to a Degree
British Statute Miles
GERMANY
POLAND
RUSSIA
HUNGARY
TRANSYLVANIA
MOLDAVIA
WALACHIA
BESSARABIA
BUDZIAC TARTARY
LITTLE TARTARY
CRIM
CIRCISSIA
SCLAVONIA
CROATIA
BOSNIA
SERVIA
BULGARIA
ROMANIA
TURKEY IN EUROPE
THESSALY
EPIRUS
MOREA
ARCHIPELAGO
BLACK SEA
TURKEY IN ASIA
MEDITERRANEAN SEA
Belgrade
Durazzo
Corfu
Cephalonia Isle
C. Spartivento
Salonica
Lemnos
Mitylene
Smyrna
Rhodes
Bursa
Sea of Marmora
Constantinople
Adrianople
Philippopoli
Bender
Oczakow
Perecop
Caffa
Samsoun Bay
Kaminieck
Choczim
Clausenburg
Hermanstadt
Temeswar
Sophia
Nicopoli
Silistria
Varna
Mouths of the Danube
Gulf of Tarento
C. St. Leuca
East Longitude



W. M. Craig del.t   J. Wallis sculp.t

INTERNAL VIEW of the SILVER MINES near

SCHEMNITZ, in HUNGARY.

which separate it from Poland; to the south by Servia and the river Drave, which separates it from Sclavonia; to the west by Moravia, Austria, and Stiria; and to the east by Walachia and Transylvania. It is about 240 miles in length, and 235 in breadth; and is divided into the Upper and Lower Hungary, the former being that part which lies towards the east, and the latter which lies towards the west.

The northern parts of the kingdom are mountainous and barren, but healthy; the southern, on the contrary, are level, and exceeding fruitful, but not very healthy. The country along the Danube, from Presburg to Belgrade, for upwards of 200 miles, is one continued plain, and no soil can be more fertile; but the air, by reason of the many swamps and morasses, is not so wholesome as on the higher and drier grounds. Here are mines of gold, silver, copper, iron, lead, quicksilver, cinnabar, antimony, yellow opiment, sulphur, vitriol, marcasite, salt native and factitious, saltpetre, magnets, asbestos or stone flax, marble of several colours, alabaster, with diamonds, and all sorts of precious stones. Corn is in such plenty, that it is sold for one sixth of its price in England. Their grapes are large and luscious; and their wines preferred to any in Europe. They have vast numbers of cattle and horses, the latter mostly mouse-coloured, with buffaloes, deer, wild-fowl, game, and fish, and many species of wild beasts, particularly chamois, goats, bears, and lynxes. Of vegetables, besides vines, and the common sorts, here are tobacco, saffron, buck-wheat, millet, melons, and chesnuts. Here also are excellent warm baths, and springs of various kinds and qualities. The chief mountains of Hungary are the Crapack or Carpathian, which is the general name for all those that separate this kingdom from Poland, Moravia, Silesia, and some parts of Austria; the sides of most of them are covered with wood, and their tops with snow. The chief rivers are the Danube, the Drave, the Save, the Wag or Waag, the Gran, the Temes, the Raab, and Thesis, all well stocked with fish. There are several lakes among the Carpathian mountains, and some also in the low lands.

The inhabitants are a mixture of the descendants of the antient Huns, Sclavonians, Camani, Germans, Walachians, Greeks, Jews, Turks, and a wandering people called Zigduns, said to be of uncertain origin, but probably the same as those we call gypsies. The Hungarians are said to be of a sanguine choleric temper, and somewhat fierce, cruel, proud, and revengeful. They have been always reputed good soldiers, being much more inclined to arms, martial exercises, and hunting, than to arts, learning, trade, or agriculture. The nobility affect great pomp and magnificence, and are much addicted to feasting and carousing. The men in general are strong and well proportioned. They shave their beards, but leave wiskers on the upper lip; wearing fur caps on their heads, a close bodied coat girt with a sash, with a short cloak or mantle over all. so contrived as to be buckled under the arm, and leave the right hand at liberty. Their horse are called hussars, and their foot heydukes. The former wear a broad sword, or scymeter, and carry a hatchet or battle-axe. Their horses are fleet, but not near so large as the German horses, and therefore they stand up on the short stirrups when they strike. The heydukes usually wear feathers in their caps, according to the number of the enemy they pretend to have killed. Both horse and foot are an excellent militia,

very good at pursuit, or ravaging and plundering a country, but not equal to regular troops in a pitched battle. The women, when they go abroad, wear short cloaks and a veil.

There are four languages spoken in this country; viz. the Hungarian, which, like the people, is of Scythian origin, and has little or no affinity with any European tongue; the German, Sclavonian or Walachian, and latin. The last is spoken, not only by the better sort, but also by the common people, though very corruptly. The people called Zigduns have also a particular jargon.

Christianity was planted in Hungary in the ninth and tenth centuries. In the 16th, the Reformation made great progress in it; but at present, though the Roman catholics hardly make a fourth part of the inhabitants, their religion is predominant; the protestants enjoying only a bare toleration. Besides several sects of protestants, here are also a great number of the Greek church and Jews; the last pay double taxes of all kinds. Besides Jesuit's colleges, and other convents, there are several universities for the Roman catholics. The Lutherans also and Calvinists have their gymnasiums and schools, but under divers restrictions.

As to the traffic of this country, it is almost wholly in the hands of the Greeks and Jews. The exports consist chiefly of wine, horses, cattle, metals, minerals, saffron, wool, and leather. Hungary in particular, furnishes Austria, and other countries west of it, with vast droves of cattle, as well as of a variety of wines, of which those of Tockay are reckoned the best. The principal manufactures are those of copper, brass, iron, and other hardwares. Great quantities of brass and iron are exported, wrought and unwrought.

Hungary at first, like all other countries, was divided into many little principalities and states, which at length were united under one head, who had the title of duke. The last of these dukes was Geysa; who, becoming a proselyte to Christianity was baptized; after which he resigned his government to his son Stephen, who took the title of king, anno 1000. But as the throne was filled by election, though generally out of the same family, the disposal of the crown was disputed between the Turkish and German emperors for near 200 years: but after the year 1527, when Ferdinand, archbishop of Austria, was advanced to the throne, the Austrians found means to influence the electors in such a manner, as to keep the crown in their family till 1687, when it was settled hereditarily on their heirs male; and now, in consequence of an act made by the diet at Presburg, in 1723, in case of the failure of heirs male, it is to descend to females. The states of the kingdom consist of the prelates, the barons, the gentry, and the royal towns. To the first class belong two archbishops, about a dozen bishops, near as many abbots and provosts, with the Pauline and Premonstratensian Jesuits. To the second the stadtholder or palatine, who represents the king; the court-judge; the viceroy of Dalmatia, Croatia, and Sclavonia; the stadtholder of Transylvania; the great treasurer, the great cup-bearer, the steward of the household, the master of the horse, the lord chamberlain, the captain of the yeomen of the guards, and the grand-marshal of the courts, who are stiled the great barons, together with the bans or counts

and barons. To the third class belong the gentry, some of whom have noble manors, and others only the privileges of nobles. To the fourth class belong the royal free cities, which are not subject to the counts, but held immediately of the king. The gentry also, who hold of the archbishops and bishops, have the same privileges as the Hungarian nobility. The common people are vassals to the lords, on whose lands they live, whether these lands belong to the crown, the clergy, the nobility, or gentry.

The ordinary revenue of this kingdom is said to exceed 1,000,000*l.* sterling, arising from the mines, duties on cattle, royal demesnes, salt-works, contributions, customs, &c. The fortifications and garrisons constantly maintained on the frontiers against the Turks, are a great expence to the government. Hungary can easily bring into the field 100,000 men, regulars and militia; for there are 50,000 in actual pay, and the provinces furnish the other 50,000 when they are wanted.

TRANSYLVANIA, SCLAVONIA, CROATIA, AND HUNGARIAN DALMATIA.

These countries appear under one division, for several reasons, and particularly because we have no account sufficiently exact of their extent and boundaries. The most authentic is as follows:

Transylvania belongs to the house of Austria, and is bounded on the north by the Carpathian mountains, which divide it from Poland; on the east by Moldavia and Walachia; on the south by Walachia; and on the west by Upper and Lower Hungary. It lies between 22° and 26° E. Long. and 45° and 48° N. Lat. Its length is about 180, and its breadth 120 miles; and contains nearly 14,400 square miles, surrounded on all sides by high mountains. Its produce, vegetables, and animals, are almost the same with those of Hungary. The air is wholesome and temperate; but the wine of this country, though good, is not equal to the Hungarian. Its chief city is Hermanstadt, and its interior government still partakes greatly of the antient feudal system, being composed of many independent states and princes, who are little more than nominally subject to the Austrians. Papists, Lutherans, Calvinists, Socinians, Arians, Greeks, Mahometans, and other sectaries, here enjoy their several religions. Transylvania is thought to add but little to the Austrian revenue, though it exports some metals and salt to Hungary. The other large places are Sageswar, Millenback, and Newmark. All sorts of provisions are very cheap, and excellent in their kinds. Hermanstadt is a large, strong, and well built city, as are Clausenburg and Weissenburg. The seat of government is at Hermanstadt, and the governor is assisted by a council made up of Roman catholics, Calvinsts, and Lutherans. The diet, or parliament, meet by summons, and receive the commands of the sovereign, to whom of late they have been more devoted than formerly. They have a liberty of making remonstrances and representations in case of grievances.

Transylvania is a part of antient Dacia, the inhabitants of which long employed the Roman arms before they could be subdued. It was over-run by the Goths on the de-

cline of the Roman empire, and then by the Huns. Their descendants retain the same military character. The population of the country is not ascertained; but if the Transylvanians can bring into the field, as has been asserted, 30,000 troops, the whole number of inhabitants must be considerable. At present their military force is reduced to six regiments of 1500 each; but it is well known, that, during the last two wars in which the house of Austria was engaged, the Transylvanians did great services. Hermanstadt is its only bishopric, and the Transylvanians at present seem to trouble themselves little either about learning or religion, though the Roman catholic is the established church. Stephen I. king of Hungary, introduced Christianity there about the year 1000; and it was afterwards governed by an Hungarian vaivod or viceroy. The various revolutions in their government prove their impatience under slavery; and though the treaty of Carlowitz, in 1699, gave the sovereignty of Transylvania, as also of Sclavonia, to the house of Austria, yet the natives enjoy what we may call a loyal aristocracy, which their sovereigns do not think proper to invade. In October, 1784, on account or the real or feigned oppressions of the nobility, near 16,000 assembled and committed great depredations on those whose conduct had been obnoxious to them. Several had their palaces burnt, and were glad to escape with their lives. The revolters were disappointed in their attempt on Clausenburg; and afterwards offered to separate, and go home in peace, on the terms of a general pardon. Lenient terms were granted them: and, with the punishment of a few, the insurrection was suppressed.

SCLAVONIA.

Sclavonia lies between 17° and 21° east longitude, and 55° and 46° north latitude. It is thought to be about 200 miles in length, and 60 in breadth, and contains about 10,000 square miles. It is bounded by the Drave on the north; by the Danube on the east; by the Save on the south; and by Stiria in Austria on the west. The reason why Hungary, Transylvania, Sclavonia, and the other nations subject to the house of Austria in those parts, contain a surprising variety of people, differing in name, language, and manners, is because liberty here made its last stand against the Roman arms, which, by degrees, forced the remains of the different nations they had conquered into those quarters. The thickness of the woods, the rapidity of the rivers, and the strength of the country favoured their resistance; and their descendants, notwithstanding the power of the Turks, the Austrians, the Hungarians, and the Poles, still retain the same spirit of independency. Without regarding the arrangements made by the sovereigns, they are quiet under the government that leaves them most at liberty. That they are generous as well as brave, appears from their attachment to the house of Austria, which, till the last two wars, never was sensible of their value and valour; insomuch that it is well known that they preserved the pragmatic sanction, and kept the imperial crown in that family. The Sclavonians formerly so much employed the Roman arms, that it is thought the word slave took its origin from them, on account of the great numbers of them who were carried into bondage, so late as the reign of Charlemagne. Though

Sclavonia yields neither in beauty nor fertility to Hungary and Transylvania, as yet the ravages of war are still visible in the face of the country, which lies in a great measure unimproved. The Sclavonians are zealous Roman catholics, though Greeks and Jews are tolerated. Here we meet with two bishoprics; that of Posega, which is the capital of the country; and Zagrab, which lies on the Drave; but we know of no universities. Esseck is a large and strong town, remarkable, as before noticed, for a wooden bridge over the Drave, and adjoining marshes, five miles long and 15 paces broad, built by the Turks. Waradin and Peterwaradin are places noted in the wars between the Austrians and the Turks. The inhabitants are composed of Servians, Radzians, Croats, Walachians, Germans, Hungarians, and a vast number of other people, whose names were never known even to the Austrians themselves, but from the military muster rolls, when they formed their troops into the field, during the last two wars. In 1746, Sclavonia was united to Hungary, and the states send representatives to the diet of Hungary.

CROATIA.

Croatia lies between 15° and 17° east longitude, and 45° and 47° north latitude. It is 80 miles in length and 70 in breadth, and contains about 2500 square miles. The manners, government, religion, language, and customs, of the Croats, are similar to those of the Sclavonians and Transylvanians, who are their neighbours. They are excellent irregular troops, and, as such, are famed in modern history, under the name of Pandours, and various other designations. The truth is, the house of Austria finds its interest in suffering them and the neighbouring nations to live in their own manner.

The towns are blended with each other, there scarcely being any distinction of boundaries. Carolstadt is a place of some note, but Zagrab, already mentioned, is the capital of Croatia. All the sovereignty exercised over them by the Austrians, seems to consist in the military arrangements for bringing them occasionally into the field: a viceroy presides over Croatia, jointly with Sclavonia and

HUNGARIAN DALMATIA.

This lies in the upper part of the Adriatic sea, and consists of five districts, in which the most remarkable places are the two following. Segna, which is a royal free town, fortified both by nature and art, and situated near the sea, in a bleak, mountainous, and barren soil. The bishop of this place is a suffragan to the archbishop of Spalatto. Here are 12 churches and two convents. The governor resides in the old palace, called the Royal Castle. Ottoschatz, a frontier fortification on the river Gatzka. That part of the fortress where the governor and the greatest part of the garrison reside, is surrounded with a wall and some towers; but the rest of the buildings, which are mean, are erected on piles in the water: so that one neighbour cannot visit another without a boat.

Near Segna dwell the Uscocs, a people, who, being galled by oppression, escaped out of Dalmatia, from whence they obtained the name of Uscocs, from the word Scoco, which signifies a deserter. They are also called springers, or leapers, from the agility with which they leap, rather than walk, along this rugged and mountainous country. Some of them live in scattered houses, and others in large villages. They are a rough, savage people, large bodied, courageous, and given to rapine; but their visible employment is grazing. They use the Walachian language, and in their religious sentiments and mode of worship approach nearest to the Greek church; but some of them are Roman catholics.

A part of Walachia belongs also to the emperor as well as to the Turks. It lies to the east of Transylvania, and its principal towns are Tregohitz, Bucharert, and Severin.

SILESIA.

Silesia is a duchy of Germany, bounded on the east by Poland; on the west by Bohemia and Lower Lusatia; on the south by a chain of mountains and a thicket of considerable extent, which separates it from Hungary; and to the north by the marquisate of Brandenburg and Poland. From north-west to south-east it is about 274 miles, and about 100 where broadest; but it is much contracted at both ends. Upon the frontiers of this country, to the west and south, are very high mountains, and some likewise in other parts of it. One of the ridges upon the frontiers is stiled the Riphaean mountains, another the Moravian, another the Bohemian, and another the Hungarian, Crapach, or Carpathian. A branch of the Bohemian is called the Giant mountains. The winter on these hilly tracts is more severe, sets in sooner, and lasts longer than in the low lands. The inhabitants use a kind of skaits when the snow is deep, as they do in Carniola. Little or no grain is raised in the mountains and some sandy tracts; but the rest of the country is abundantly fruitful, not only in grain, but fruits, roots, pastures, flax, hops, madder, tobacco, and hemp; yielding also wine, with considerable quantities of silk and honey. In many places are great woods of pines, fir, beech, larch, and other trees; affording tar, pitch, rosin, turpentine, lamp-black, and timber for all uses. In this country is also found marble of several sorts, some precious stones, lime-stone, mill-stone, pit-coal, turf, vitriol, some silver ore, copper, lead, iron, and mineral springs. Great numbers of black cattle and horses are brought hither from Poland and Hungary for sale, those bred in the country not being sufficient; but of sheep, goats, game, and venison, they have great plenty. As for wild beasts, here are lynxes, foxes, weasels, otters, and beavers. The rivers, lakes, and ponds, yield fish of several sorts, particularly sturgeons, several ells in length, and salmon. Besides a number of smaller streams to water this country, there is the Oder, which traverses it almost from one end to the other; and the Vistula, which, after a pretty long course through it, enters Poland. The number of the cities and market towns is said to be about 200, the county of Glatz included, and that of the villages 5000.

The inhabitants, who are computed to be about 1,500,000, are a mixture of Germans, Poles, and Moravians. The language generally spoken is German; but in some places the vulgar tongue is a dialect of the Sclavonic. The states consist of the princes and dukes, and those called state-lords, with the nobility who are immediately subject to the sovereign, and the representatives of the chief cities: but since the country fell under the dominion of the king of Prussia, no diets have been held. The king, however, when he took possession of the country, confirmed all the other privileges of the inhabitants. With respect to religion, not only protestants, but papists, Jews, and Greeks, enjoy full liberty of conscience. The greatest part of Silesia lies in the diocese of Breslaw, but some part of it in the Polish dioceses of Posen and Cracow. The bishop of Breslaw stands immediately under the pope with regard to spirituals; but all ecclesiastical benefices, not excepting the see of Breslaw, are in the king's gift. Besides latin schools, colleges, and seminaries, at Breslaw is an university, and at Lignitz an academy for martial exercises. The principal manufactures here are woollens, linens, and cottons of several sorts, with hats, glass-ware, gunpowder, and iron manufactures. Of these there is a considerable exportation. Accounts are generally kept in rix-dollars, silver groschens, and ducats.

With respect to its revolutions and present government, it was long a part of the kingdom of Poland; afterwards it had several dukes and petty princes for its sovereigns who by degrees became subject to the kings of Bohemia, until at last king Charles IV. incorporated the whole duchy with Bohemia; and thus it continued in the possession of the house of Austria, until the king of Prussia, in 1742 taking advantage of the troubles that ensued upon the death of the emperor Charles VI. and pretending a kind of claim, wrested a great part of it, together with the county of Glatz, from his daughter and heiress, Maria Theresa, the late empress-dowager; so that now only a small part of it is possessed by the house of Austria, and connected with the empire, the rest being governed by the king of Prussia, without acknowledging any sort of dependence on the crown of Bohemia or the empire. For the administration of justice in all civil, criminal, and feudal cases, and such as relate to the revenue, the king of Prussia has established three supreme judicatories, to which an appeal lies from all the inferior ones, and from which, when the sum exceeds 500 rix-dollars, causes may be moved to Berlin.

The Lutheran churches and schools are under the inspection of the upper consistories, and those of the papists under that of the bishop's court at Breslaw; but from both an appeal lies to the tribunal at Berlin. As to the revenue, the excise here is levied only on the walled towns, being on the same footing as in the marquisate of Brandenburg; but in the rest of the country the contributions are fixed, and the same both in peace and war. The several branches of the revenue are under the management of the war and domain officers of Breslaw and Glogau. The whole revenue arising to the king of Prussia from Silesia and the county of Glatz, amounts to about 4,000,000 of rix-dollars per annum.

Silesia is divided into Upper and Lower, and each of these again into principalities and lordships; of some of which both the property and jurisdiction belong immediately

to the sovereign, but of others to his subjects and vassals. In regard to the character of the people, the boors are accounted very dull and stupid; but of those of a higher rank, many have distinguished themselves by their wit and learning, as well as by their military and political talents. However, in general, like their neighbours, the Germans and Bohemians, they have more of Mars than Mercury in their composition, and their parts are more solid than shining.

PRUSSIA.

The principal divisions of which the Prussian monarchy is composed, are Ducal, now Regal Prussia, situated in Poland; Brandenburg, Prussian Pomerania, and Swedish Pomerania, in Upper Saxony; Magdeburg and Halberstadt, in Lower Saxony; Glatz, in Bohemia; Minden, Ravensburg, Lingen, Cleves, Meurs, and Mark, in the duchy of Westphalia; East Friesland, Lippe, Gulick, and Tacklenburg, in the circle of Westphalia; the margraviate of Anspach, in the circle of Franconia; Gelder, in the Netherlands; Neufchatal, in Switzerland; and part of Silesia, and the countries lately wrested from Poland.

In countries so various, and districts so dispersed, any general account of the air must be liable to many exceptions; however, upon the whole, it seems favourable to health. The soil is fruitful in corn and other commodities, nor is the country deficient in a proportionate number of animals common to the climate, such as horses, cows, sheep, deer, bears, wolves, wild boars, and foxes; and the rivers and lakes are amply stored with fish.

There are not many mines in Prussia; a few, however, are found of copper and lead, and some of iron. These afford materials for the employment of artists, but very little metal, in its crude state, is exported. The principal minerals found in this country are sulphur, alum, nitre, and lapis calaminaris. Here are several quarries of stone, and some of slate; a species of marble has also been discovered in many of the mountains.

Several kinds of bitumen too are found here, but the principal is amber, of which Prussia has been considered as the native country. This celebrated bitumen, though originally generated in the earth, is found in plenty in the Baltic sea, especially near the sea-shore of Sudwic, where it swims on the water, and is taken up by the nets.

Koningsberg, the capital of Regal Prussia, has a magnificent palace, in which is a hall 274 feet long, and 59 broad, without pillars to support it, and a handsome library. It is about five miles in circumference; and, including the garrison of 7000 men, contains 60,000 inhabitants. The town-house, the exchange, and the cathedral church, are all very fine structures. The tower of the castle is exceeding high, and has 284 steps to go to the top, from whence there is a very distant prospect. There are 18 churches in all, of which 14 belong to the Lutherans, three to the Calvinists, and one to the papists. It stands on the Pregal, a navigable river, which flows from the north-western provinces of Poland, and here falls into the eastern extremity of the Frische

Haf, an inlet of the Baltic. No ships drawing more than seven feet water can pass the bar, and come up to the town; so that the large vessels anchor at Pislau, a small town on the Baltic, which is the port of Koningsberg; and the merchandize is sent in smaller vessels to this place. Its trade is very considerable.

Koningsberg contains an university founded by Albert of Brandenburg. According to the original endowment, there were 40 professors; but their number is now reduced to 16. Each professor receives a salary of about 50*l.* per annum, which may be increased by private lectures. In 1775, the university contained 800 students, of whom 200 are boarded and lodged at the expence of the crown. There are three public libraries in the town, the royal or universal library, the town library, and the Wallenrodt library, so called because it was given by Martien Van Wallenrodt, in 1650.

While we refer the description of his Prussian majesty's acquisition from Poland, till we treat of the other parts of that monarchy, we shall here annex an account of Dantzic, as in that city the German manners have long prevailed.

Dantzic, the capital of Polish Prussia, stands on a branch of the Vistula, about four miles above where it falls into the Baltic; in E. Long. 18° 36, N. Lat. 54° 20. This city is famous in history on many accounts, particularly that of its being formerly at the head of the Hanseatic association, commonly called the Hans-towns. It is large, beautiful, populous, and rich; its houses generally are five stories high; and many of its streets are planted with chesnut trees. One of the suburbs is called Scotland: and the Scots have great privileges, in consequence of their gallant defence of the town, under one of the family of Douglas, when it was besieged by the Poles. It is said there are upwards of 30,000 pedlars of that nation in Poland who travel on foot, and some with three, four, or five horses. In the time of king Charles II. they were about 53,000: in that reign sir John Denham and Mr. Killigrew were sent to take the number of them, and to tax them by the poll, with the king of Poland's licence; which, having obtained, they brought home 10,000*l.* sterling, besides their charges in the journey.

Dantzic has a fine harbour, and is still a most eminent commercial city, although it seems to be somewhat past its meridian glory, which was probably about the time that the president de Thou wrote his much esteemed Historia sui Temporis, wherein, under the year 1607, he so highly celebrates its commerce and grandeur. It is a republic, claiming a small adjacent territory, about 40 miles round it, which were under the protection of the king and the republic of Poland. Its magistracy, and the majority of its inhabitants, are Lutherans; although the Romanists and Calvinists be equally tolerated in it. It has 26 parishes, with many convents and hospitals. The inhabitants have been computed to amount to 200,000; but later computations fall very considerably short of it, as appears by its annual bill of mortality, exhibited by Dr. Busching; who tells us, that, in the year 1752, there died but 1846 persons.

Its own shipping is numerous; but the foreign ships constantly resorting to it are more so; whereof 1014 arrived there in the year 1752; in which year also 1288 Polish vessels came down the Vistula, chiefly laden with corn, for its matchless granaries; from whence that grain is distributed to many foreign nations, Poland being justly,

deemed the greatest magazine of corn in all Europe, and Dantzic the greatest port for distributing it every where: besides which, Dantzic exports great quantities of naval stores, and a vast variety of other articles. Dr. Busching affirms, that it appears from antient records, as early as the year 997, that Dantzic was a large commercial city, and not a village or inconsiderable town, as some pretend. The inhabitants of Dantzic have often changed their masters, and have sometimes been under the protection of the English and Dutch; but have generally shown a great predilection for the kingdom and republic of Poland, as being less likely to rival them in their trade, or abridge them of their immunities, which reach even to the privilege of coining money.

Though strongly fortified, and possessed of 150 large brass cannon, it could not, from its situation, stand a regular siege, being surrounded with eminences. In 1734, the inhabitants discovered a remarkable atachment and fidelity towards Stanislaus, king of Poland, not only when his enemies, the Russians, were at their gates, but even in possession of the city. This city was exempted by the late king of Prussia from those claims which he made on the neighbouring countries; notwithstanding which, his Prussian majesty soon after thought proper to seize on the territories belonging to Dantzic, under pretence of their having been formerly part of Polish Prussia. He then proceeded to possess himself of the port-duties belonging to that city, and erected a custom-house in the harbour, where he laid arbitrary and insupportable duties upon goods exported or imported. To complete the system of oppression, custom-houses were erected at the very gates of Dantzic, so that no persons could go in or out of the town without being searched in the strictest manner. Such is the treatment which the city of Dantzic has received from the king of Prussia, though few cities have ever existed which have been comprehended in so many general and particular treaties, and whose rights and liberties have been so frequently secured, and guaranteed by so many great powers, and by such a long and regular succession of public acts, as that of Dantzic has been. In the year 1784, it was blockaded by his troops on various pretences; but by the interposition of the empress of Russia and of the king of Poland, they were withdrawn and a compromise having taken place, the city was restored to its former immunities. Nevertheless, its trade has since been rather upon the decline, the merchants choosing to settle where their property may be more secure.

CHAPTER II.

GERMANY AND THE NORTH—*From the most remote antiquity, to the rise of the German Empire.*

THE first authentic information that we have received concerning these countries is, that the Phœnicians, as early as the days of David, traded to Prussia, and thence imported amber. But of their voyages no journals remain, nor can we tell any thing of what was the state of these countries till we come to the time of the Romans.

The Romans divided Germany into two regions; Belgic, or Lower Germany, which lay to the southward of the Rhine; and Germany Proper, or High Germany. The first lay between the river Seine and the Rhine; and in this we find a number of different nations, the most remarkable of which were the following.

1. The Ubii, whose territory lay between the Rhine and the Mosa or Maese, and whose capital was the city of Cologne. 2. Next to them were the Tungri, supposed to be the same whom Cæsar calls Eburones and Condrusi; and whose metropolis, then called Attuatica, has since been named Tongres. 3. Higher up from them, and on the other side of the Moselle, were the Treviri, whose capital was Augusta Treviorum, now Triers. 4. Next to them were the Tribocci, Nemetes, and Vangiones. The former dwelt in Alsace, and had Argentoratum, now Strasburg, for their capital: the others inhabited the cities of Worms, Spire, and Mentz. 5. The Mediomatrici were situated along the Moselle, about the city of Mentz in Lorrain; and above them was situated another German nation, named Raurici, Rauraci, or Rauriaci, and who inhabited that part of Helvetia, or Switzerland, and Basil. To the westward and southward of these were the Nervii, Suessones, Silvanectes, Leuci, Rhemi, Lingones, &c. who inhabited Belgic Gaul.

Between the heads of the Rhine and Danube was seated the antient kingdom of Vindelicia, whose capital was called Augusta Vindelicorum, now Augsburg. Below it, on the banks of the Danube, were the kingdoms of Noricum and Pannonia. The first of these was divided into Noricum Ripense and Mediterraneum. It contained a great part of the provinces of Austria, Stiria, Carinthia, Tyrol, Bavaria, and some others of less note. The latter contained the kingdom of Hungary, divided into Upper and Lower; and extending from Illyricum to the Danube, and the mountains Cœtii in the neighbourhood of Vindebona, now Vienna.

Upper or High Germany lay beyond the Rhine and the Danube. Between the Rhine and the Elbe were the following nations. 1. The Chauci, Upper and Lower, who were divided from each other by the river Visurges, now the Weser. Their country contained what is now called Bremen, Lunenburg, Friezland, and Groninghen. The upper Chauci had the Cherusci, and the lower the Chamavi on the south-east, and the

German Ocean on the north-west. 2. The Frisii, Upper and Lower, were divided from the Lower Chauci by the river Amisia, now the Ems; and from one another by an arm of the Rhine. Their country still retains the name of Friesland, and is divided into east and west; but the latter is now dismembered from Germany, and become one of the Seven United Provinces. 3. Beyond the Isela, now the Isel, which bounded the country of the Frisii, were situated the Bructeri, who inhabited that tract now called Broecmorland; and the Marsi, about the river Luppe. On the other side of that river were the Usipii, or Usipites; but these were famed for often changing their territories, and therefore found in other places. 4. Next to these were the Juones, or inhabitants of Juliers, between the Maese and the Rhine. 5. The Catti, another antient and warlike nation, inhabited Hesse and Thuringia, from the Hart-zian mountains to the Rhine and Weser; among whom were comprehended the Mattiaci, whose capital is by some thought to be Marpurg, by others Baden. 6. Next to these were the Seducii, bordering upon Suabia; Narisci, or the antient inhabitants of Northgow, whose capital was Nuremberg; and the Marcomanni, whose country antiently reached from the Rhine to the head of the Danube, and to the Neckar. The Marcomanni afterwards went and settled in Bohemia and Moravia, under the general or king Maroboduus; and some of them in Gaul, whence they drove the Boii, who had seated themselves there. 7. On the other side of the Danube, and between the Rhine and it, were the Hermunduri, who possessed the country now called Misnia, in Upper Saxony; though some make their territories to have extended much farther, and to have reached quite to, or even beyond, the kingdom of Bohemia, once the seat of the Boii, whence its name. 8. Beyond them, on the north of the Danube, was another seat of the Marcomanni, along the river Albis or Elbe. 9. Next to Bohemia were situated the Quadi, whose territories extended from the Danube to Moravia, and the northern part of Austria. These are comprehended under the antient name of Suevi; part of whom at length forced their way into Spain, and settled a kingdom there. 10. Eastward of the Quadi were situated the Bastarnæ, and parted from them by the Granna, now Gran; a river that falls into the Danube, and by the Carpathian mountains, from them called Alpes Bastarnicæ. The country of the Basternæ indeed made part of the European Sarmatia, and so was without the limits of Germany, properly so called; but we find these people so often in league with the German nations, and joining them for the destruction of the Romans, that we cannot but account them as one people.

Between those nations already taken notice of, seated along the other side the Danube and the Hercynian forest, were several others, whose exact situation is uncertain; viz. the Montingi, Burii, Borades, Lygii or Logiones, and some others, who are placed by our geographer along the forest above mentioned, between the Danube and the Vistula.

On this side the Hercynian forest were the famed Rhæti, now Grisons, seated among the Alps. Their country, which was also called Western Illyricum, was divided into Rhætia Prima or Propria, and Secunda; and was then of much larger extent, spreading itself towards Suabia, Bavaria, and Austria.

On the other side the Hercynian forest, were, 1. The Suevi, who spread themselves from the Vistula to the river Elbe. 2. The Longobardi, so called, according to some, on account of their wearing long beards; but, according to others, on account of their consisting of two nations; viz. the Bardi and Lingones. These dwelt along the river Elbe, and bordered southward on the Chauci above mentioned. 3. The Burgundi, of whose original seat we are uncertain. 4. The Semnones; who, about the time of Tiberius, were seated on the river Elbe. 5. The Angles, Saxons, and Goths, were probably the descendants of the Cimbri, and inhabited the countries of Denmark, along the Baltic sea, and the peninsula of Scandinavia, containing Norway, Sweden, Lapland, and Finmark. 6. The Vandals were a Gothic nation, who, proceeding from Scandinavia, settled in the countries now called Mecklenburgh and Brandenburgh. 7. Of the same race were the Dacians, who settled themselves in the neighbourhood of Palus Mæotis, and extended their territories along the banks of the Danube.

These were the names of the German nations who performed the most remarkable exploits in their wars with the Romans. Besides these, however, we find mention made of the Scordisci, a Thracian nation, who afterwards settled on the banks of the Danube. About the year 113 B. C. they ravaged Macedon, and cut off a whole Roman army sent against them; the general, M. Porcis Cato, grandson to Cato the censor, being the only person who had the good fortune to make his escape. After this, they ravaged all Thessaly, and advanced to the coasts of the Adriatic; into which, because it stopped their further progress, they discharged a shower of darts. By another Roman general, however, they were driven back into their own country with great slaughter; and, soon after, Metellus so weakened them by repeated defeats, that they were incapable, for some time, of making any more attempts on the Roman provinces. At last, in the consulship of M. Livius Drusus and L. Calpurnius Piso, the former prevailed on them to pass the Danube, which thenceforth became the boundary between the Romans and them. Notwithstanding this, in the time of the Jugurthine war, the Scordisci repassed the Danube on the ice every winter, and being joined by the Triballi, a people of Lower Mœsia, and the Daci of Upper Mœsia, penetrated as far as Macedon, making every where dreadful ravages. So early did these northern nations begin to be formidable to the Romans, even when they were most renowned for warlike exploits.

Till the time of Julius Cæsar, however, we hear nothing more concerning the Germans. About 58 years B. C. he undertook his expedition into Gaul; during which, his assistance was implored by the Ædui, against Ariovistus, a German prince, who oppressed them. Cæsar, pleased with the opportunity of increasing his power, invited Ariovistus to an interview; but this being declined, he next sent deputies, desiring him to restore the hostages he had taken from the Ædui, and to bring no more troops over the Rhine into Gaul. To this a haughty answer was returned; and a battle soon after ensued, in which Ariovistus was entirely defeated, and with great difficulty made his escape.

In 55 B. C. Cæsar, having subdued the Suessiones, Bellovaci, Ambiani, Nervii,

and other nations of Belgic Gaul, hastened to oppose the Usipetes and Tencteri. These nations having been driven out of their own country by the Suevi, had crossed the Rhine, with a design to settle in Gaul. As soon as he appeared, the Germans sent him a deputation, offering to join him, provided he would assign them lands. Cæsar replied, that there was no room in Gaul for them; but he would desire the Ubii to give them leave to settle among them. Upon this, they desired time to treat with the Ubii; but, in the mean time, fell upon some Roman squadrons; which so provoked Cæsar, that he immediately marched against them, and coming unexpectedly upon them, defeated them with great slaughter. They fled in the utmost confusion, but the Romans pursued them to the conflux of the Rhine and the Maese, where the slaughter was renewed with such fury, that almost 400,000 of the Germans perished.

After this, Cæsar being resolved to spread the terror of the Roman name through Germany, built a bridge over the Rhine, and entered that country. In this expedition, however, which was his last in Germany, he performed no remarkable exploit. A little before his death, indeed, he had projected the conquest of that, as well as of a great many other countries; but his assassination prevented the execution of his designs. Nor is there any thing recorded of the Germans, till almost 17 B. C. when the Tencteri made an irruption into Gaul, and defeated M. Lollius, proconsul of that province. At last, however, they were repulsed, and forced to retire, with great loss, beyond the Rhine.

Soon after this, the Rhæti invaded Italy, where they committed the greatest devastations, putting all the males they met to the sword, without distinction of age: nay, we are told, that when they happened to take women with child, they consulted their augurs, to know whether the child was a male or female; and if they pronounced it a male, the mother was immediately massacred. Against these barbarians was sent Drusus, the second son of Livia, a youth of extraordinary valour and great accomplishments. He found means to bring them to a battle; in which the Romans proved victorious, and cut in pieces great numbers of their enemies, with very little loss on their own side. Those who escaped the general slaughter, being joined by the Vindelici, took their rout towards Gaul, with a design to invade that province. But Augustus, upon the first notice of their march, dispatched against them Tiberius, with several chosen legions. He was no less successful than Drusus had been; for, having transported his troops over the lake Brigantium, now Constance, he fell unexpectedly on the enemy, gave them a total overthrow, took most of their strong holds, and obliged the whole nation to submit to such terms as he chose to impose upon them. Thus were the Vindelici, the Rhæti, and Norici, three of the most barbarous nations in Germany, subdued. Tiberius, to keep the conquered countries in awe, planted two colonies in Vindelicia, and opened from thence a road into Rhætia and Noricum. One of the cities which he built for the defence of his colonies, he called, from his father Drusus, Druso Magus; the other by the name of Augustus, Augusta Vindelicorum; which cities are now known by the names of Mimminghen and Augsburg. He next encountered the Pannonians, who had been subdued by Agrippa, but revolted on hearing the news of that great commander's death, which happened 11 years B. C. Tiberius, however, with the assistance of their

neighbours, the Scordisci, soon forced them to submit. They delivered up their arms, gave hostages, and put the Romans in possession of all their towns and strong holds. Tiberius spared their lives; but laid waste their fields, plundered their cities, and sent the best part of their youth into other countries.

In the mean time, Drusus, having prevented the Gauls from revolting, which they were ready to do, prepared to oppose the Germans, who dwelt beyond the Rhine. They had collected the most numerous and formidable army that had ever been seen in those parts; with which they were advancing towards the Rhine, in order to invade Gaul. Drusus defeated them as they attempted to cross that river; and, pursuing the advantage he had gained, entered the country of the Usipetes, now Relinchusen, and from thence advanced against the Sicambri, in the neighbourhood of the Lyppe and Issel. Them he overthrew in a great battle, laid waste their country, burnt most of their cities, and following the course of the Rhine, approached the German ocean, reducing the Frisii and the Chauci, between the Ems and the Elbe. In these marches the troops suffered extremely for want of provisions; and Drusus himself was often in great danger of being drowned, as the Romans who attended him were at that time quite unacquainted with the flux and reflux of the ocean.

The Roman forces went into East Friesland for their winter quarters; and next year, 10 B. C. Drusus marched against the Tencteri, whom he easily subdued. Afterwards, passing the Lupias, now the Lippe, he reduced the Catti and Cherusci, extending his conquests to the banks of the Visurgis or Weser; which he would have passed, had he not been in want of provisions, the enemy having laid waste the country to a considerable distance. As he was retiring, the Germans unexpectedly fell upon him in a narrow passage; and having surrounded the Roman army, cut a great many of them in pieces. But Drusus, having animated his men by his example, after a bloody conflict, which lasted the whole day, the Germans were defeated with such slaughter, that the ground was strewed for several miles with dead bodies. Drusus found in their camp a great quantity of iron chains, which they had brought for the Romans; and so great was their confidence, that they had agreed beforehand about the division of the booty. The Tencteri were to have the horse, the Cherusci and Sicambri the baggage, and the Usipetes and Catti the captives.

After this victory, Drusus built two forts, to keep the conquered countries in awe; the one at the confluence of the Lyppe and the Alme, the other in the country of the Catti on the Rhine. On this occasion also he made a famous canal, long after called, in honour of him, Fossa Drussiana, to convey the waters of the Rhine into the Sala or Sale. It extended eight miles; and was very convenient for conveying the Roman troops by water to the countries of the Frisii and Chauci, which was the design of the undertaking.

The following year, 9 B. C. Augustus, bent on subduing the whole of Germany, advanced to the banks of the Rhine, attended by his two sons-in-law, Tiberius and Drusus. The former he sent against the Daci, who lived up to the south of the Danube; and the latter to complete the conquests he had so successfully begun in the western parts of Germany. The former easily overcame the Daci, and transplanted 40,000 of them

into Gaul. The latter, having passed the Rhine, subdued all the nations from that river to the Elbe; but having attempted in vain to cross this last, he set out for Rome: an end, however, was put to his conquests and his life, by a violent fever, with which he was seized on his return.

After the death of Drusus, Tiberius again over-ran all those countries in which Drusus had spent the preceding summer; and struck some of the northern nations with such terror, that they sent deputies to sue for peace. This, however, they could not obtain upon any terms; the emperor declaring that he would not conclude a peace with one, unless they all desired it. But the Catti, or, according to some, the Sicambri, could not by any means be prevailed upon to submit; so that the war was still carried on, though in a languid manner, for about 18 years. During this period, some of the German nations had quitted their forests, and begun to live in a civilized manner, under the protection of the Romans, but one Quintilius Varus being sent to command the Roman forces in that country, so provoked the inhabitants by his extortions, that not only those who still held out refused to submit, but even the nations that had submitted were seized with an eager desire of throwing off the yoke. Among them was a young nobleman, of extraordinary parts and valour, named Arminius. He was the son of Sigimer, one of the most powerful lords among the Catti, had served with great reputation in the Roman armies, and been honoured by Augustus with the privileges of a Roman citizen and the title of knight. But the love of his country prevailing over his gratitude, he resolved to improve the general discontent which reigned among his countrymen, to deliver them from the bondage of a foreign dominion. With this view, he engaged, underhand, the leading men of all the nations between the Rhine and the Elbe, in a conspiracy against the Romans. In order to put Varus off his guard, he at the same time advised him to show himself to the inhabitants of the more distant provinces, administer justice among them, and accustom them, by his example, to live after the Roman manner, which he said would more effectually subdue them than the Roman swords. As Varus was a man of a peaceable temper, and averse from military toils, he readily consented to this insidious proposal; and, leaving the neighbourhood of the Rhine, marched into the country of the Cherusci. Having there spent some time in hearing causes and deciding civil controversies, Arminius persuaded him to weaken his army, by sending out detachments to clear the country of robbers. When this was done, some distant nations in Germany rose up in arms, by Arminius's directions; while those through which Varus was to pass in marching against them, pretended to be in a state of profound tranquillity, and ready to join the Romans against their enemies.

On the first news of the revolt, Varus marched against the enemy with three legions and six cohorts; but being attacked by the Germans as he passed through a wood, his army was almost totally cut off, while he himself and most of his officers fell by their own hands. Such a terrible overthrow, though it raised a general consternation in Rome, did not, however, dishearten Augustus, or cause him to abandon his enterprise.

About two years after, A. D. 12, Tiberius and Germanicus were appointed to

command in Germany. The death of Augustus, however, which happened soon after, prevented Tiberius from going on his expedition; and Germanicus was for some time hindered from proceeding in his, by a revolt of the legions, first in Pannonia, and then in Germany. About the year 15, Germanicus, having brought over the soldiers to their duty, laid a bridge across the Rhine, over which he marched 12,000 legionaries, 26 cohorts of the allies, and eight alæ (squadrons of 300 each) of horse. With these he first traversed the Coesian forest (part of the Hercynian, and thought to lie partly in the duchy of Cleves, and partly in Westphalia), and some other woods. On his march, he was informed that the Marsi were celebrating a festival, with great mirth and jollity. Upon this, he advanced with such expedition, that he surprised them in the midst of their debauch; and, giving his army full liberty to make what havock they pleased, a terrible massacre ensued, and the country was destroyed with fire and sword for 50 miles round, without the loss of a single man on the part of the Romans. This general massacre roused the Bructeri, the Tubantes, and the Usipetes; who, besetting the passes through which the Roman army was to return, fell upon their rear, and put them into some disorder; but the Romans soon recovered themselves, and defeated the Germans with considerable loss.

In the following year, A. D. 16, Germanicus, taking advantage of some intestine broils which happened among the Catti, entered their country, where he put great numbers to the sword. Most of their youth, however, escaped, by swimming over the Adrana, now the Eder, and attempted to prevent the Romans from laying a bridge over that river: but being disappointed in this, some of them submitted to Germanicus, while the greater part, abandoning their villages, took refuge in the woods; so that the Romans, without opposition, set fire to all their villages, towns, &c. and having laid their capital in ashes, began their march back to the Rhine.

Germanicus had scarce reached his camp, when he received a message from Segestes, a German prince, in the interest of the Romans, acquainting him that he was besieged in his camp by Arminius. On this advice, he instantly marched against the besiegers; entirely defeated them; and took a great number of prisoners, among whom was Thusneldis, the wife of Arminius, and daughter of Segestes, whom the former had carried off, and married against her father's will. Arminius then, more enraged than ever, for the loss of his wife, whom he tenderly loved, stirred up all the neighbouring nations against the Romans. Germanicus, however, without being dismayed by such a formidable confederacy, prepared himself to oppose the enemy with vigour; but, that he might not be obliged to engage such numerous forces at once, he detached his lieutenant, Cæcina, at the head of 40 cohorts, into the territories of the Bructeri; while his cavalry, under the command of Pedo, entered the country of the Frisii. As for Germanicus himself, he embarked the remainder of his army, consisting of four legions, on a neighbouring lake; and transported them, by rivers and canals, to the place appointed on the river Ems, where the three bodies met. In their march, they found the sad remains of the legions conducted by Varus, which they buried, with all the ceremony their circumstances could admit. After this they advanced against Arminius, who retired, and posted

himself advantageously close to a wood. The Roman general followed him; and coming up with him, ordered his cavalry to advance and attack the enemy. Arminius, at their first approach, pretended to fly; but suddenly wheeled about, and giving the signal to a body of troops, whom he had concealed in the wood, to rush out, obliged the cavalry to give ground. The cohorts then advanced to their relief; but they too were put into disorder, and would have been pushed into a morass, had not Germanicus himself advanced, with the rest of the cavalry, to their relief. Arminius did not think it prudent to engage these fresh troops, but retired in good order; upon which, Germanicus also retired towards the Ems. Here he embarked with four legions, ordered Cæcina to reconduct the other four by land, and sent the cavalry to the sea-side, with orders to march along the shore to the Rhine. Though Cæcina was to return by roads well known, yet Germanicus advised him to pass, with all possible speed, a causeway, called the long bridges, which led across vast marshes, surrounded on all sides with woods and hills, that gently rose from the plain.

Arminius, however, having got notice of Cæcina's march, arrived at the long bridges before Cæcina, and filled the woods with his men: who, on the approach of the Romans, rushed out, and attacked them with great fury. The legions, not able to manage their arms in the deep waters and slippery ground, were obliged to yield; and would, in all probability, have been entirely defeated, had not night put an end to the combat. The Germans, encouraged by their success, instead of refreshing themselves with sleep, spent the whole night in diverting the courses of the springs which rose in the neighbouring mountains; so that, before day, the camp which the Romans had begun was laid under water, and their works were overturned. Cæcina was for some time at a loss what to do; but at last resolved to attack the enemy by day-break, and having driven them to their woods, to keep them there in a manner besieged, till the baggage and wounded men should pass the causeway, and get out of the enemy's reach. But when his army was drawn up, the legions posted on the wings, seized with a sudden panic, deserted their stations, and occupied a field beyond the marshes. Cæcina thought it advisable to follow them; but the baggage stuck in the mire, as he attempted to cross the marshes, which greatly embarrassed the soldiers. Arminius, perceiving this, laid hold of the opportunity to begin the attack; and crying out, "This is a second Varus, the same fate attends him and his legions," fell upon the Romans with inexpressible fury. As he had ordered his men to aim chiefly at the horses, great numbers of them were killed: and the ground becoming slippery with their blood and the slime of the marsh, the rest either fell or threw their riders, and galloping through the ranks, put them in disorder. Cæcina distinguished himself in a very eminent manner; but his horse being killed, he would have been taken prisoner, had not the first legion rescued him. The greediness of the enemy, however, saved the Romans from utter destruction; for just as the legions were quite spent, and on the point of yielding, the barbarians on a sudden abandoned them, in order to seize their baggage. During this respite, the Romans struggled out of the marsh, and having gained the dry fields, formed a camp with all possible speed, and fortified it in the best manner they could.

The Germans having lost the opportunity of destroying the Romans, contrary to the advice of Arminius, attacked their camp next morning, but were repulsed with great slaughter; after which they gave Cæcina no more molestation, till he reached the banks of the Rhine. Germanicus, in the mean time, having conveyed the legions he had with him down the river Ems into the ocean, in order to return by sea to the river Rhine, and finding that his vessels were overloaded, delivered the second and 14th legions to Publius Vitellius, desiring him to conduct them by land. But this march proved fatal to great numbers of them; who were either buried in the quicksands, or swallowed up by the overflowing of the tide, to which they were as yet utter strangers. Those who escaped, lost their arms, utensils, and provisions; and passed a melancholy night upon an eminence, which they had gained by wading up to the chin. The next morning, the land returned with the tide of ebb; when Vitellius, by a hasty march, reached the river Usinges, by some thought to be the Hoerenster, on which the city of Groningen stands. There Germanicus, who had reached that river with his fleet, took the legions again on board, and conveyed them to the mouth of the Rhine, whence they all returned to Cologne, at a time when it was reported they were totally lost.

This expedition, however, cost the Romans very dear, and procured very few advantages. Great numbers of men had perished; and by far the greatest part of those who escaped so many dangers, returned without arms, utensils, horses, &c. half naked, lamed, and unfit for service. The next year, however, Germanicus, bent on the entire reduction of Germany, made vast preparations for another expedition. Having considered the various accidents that had befallen him during the war, he found that the Germans were chiefly indebted for their safety to their woods and marshes, their short summers and long winters; and that his troops suffered more from their long and tedious marches than from the enemy. For this reason, he resolved to enter the country by sea, hoping by that means to begin the campaign earlier, and surprise the enemy. Having, therefore, built, with great dispatch, during the winter, 1000 vessels of different sorts, he ordered them, early in the spring, A. D. 16, to fall down the Rhine, and appointed the island of the Batavians for the general rendezvous of his forces. When the fleet was sailing, he detached Silius, one of his lieutenants, with orders to make a sudden irruption into the country of the Catti; and, in the mean time, he himself, upon receiving intelligence that a Roman fort on the Luppias was besieged, hastened with six legions to its relief. Silius was prevented, by sudden rains, from doing more than taking some small booty, with the wife and daughter of Arpen, king of the Catti; neither did those who besieged the fort wait the arrival of Germanicus. In the mean time, the fleet arriving at the island of the Batavians, the provisions and warlike engines were put on board, and sent forward; ships were assigned to the legions and allies; and the whole army being embarked, the fleet entered the canal formerly cut by Drusus, and from his name called Fossa Drusiana. Hence he sailed prosperously to the mouth of the Ems; where having landed his troops, he marched directly to the Weser, where he found Arminius encamped on the opposite bank, and determined to dispute his passage. The next day, Arminius drew out his troops in order of battle; but Germanicus not thinking it ad-

visable to attack them, ordered the horse to ford over, under the command of his lieutenants Stertinius and Emilius; who, to divide the enemy's forces, crossed the river in two different places. At the same time, Cariovalda, the leader of the Batavian auxiliaries, crossed the river where it was most rapid; but, being drawn into an ambuscade, he was killed, together with most of the Batavian nobility; and the rest would have been totally cut off, had not Stertinius and Emilius hastened to their assistance. Germanicus, in the mean time, passed the river without molestation. A battle soon after ensued, in which the Germans were defeated with so great a slaughter, that the ground was covered with arms and dead bodies for more than 10 miles round: and among the spoils taken on this occasion, were found, as formerly, the chains with which the Germans had hoped to bind the captives.

In memory of this signal victory, Germanicus raised a mount, upon which he placed as trophies the arms of the enemy, and inscribed underneath the names of the conquered nations. This so provoked the Germans, though already vanquished, and determined to abandon their country, that they attacked the Roman army unexpectedly on its march, and put them into some disorder. Being repulsed, they encamped between a river and a large forest surrounded by a marsh, except on one side, where it was enclosed by a broad rampart, formerly raised by the Angrivarii, as a barrier between them and the Cherusci. Here another battle ensued; in which the Germans behaved with great bravery, but in the end were defeated with great slaughter.

After this second defeat, the Angrivarii submitted, and were taken under the protection of the Romans, and Germanicus put an end to the campaign. Some of the legions he sent to their winter quarters by land, while he himself embarked with the rest on the river Ems, in order to return by sea. The ocean proved at first very calm, and the wind favourable: but all of a sudden, a storm arising, the fleet, consisting of 1000 vessels, was dispersed; some of them were swallowed up by the waves; others were dashed in pieces against the rocks, or driven upon remote and inhospitable islands, where the men either perished by famine, or lived upon the flesh of the dead horses, with which the shores soon appeared strewed: for, in order to lighten their vessels, and disengage them from the shoals, they had been obliged to throw over board their horses and beasts of burden, nay, even their arms and baggage. Most of the men, however, were saved, and even great part of their fleet recovered. Some of them were driven upon the coast of Britain; but the petty kings who reigned there generously sent them back.

On the news of this misfortune, the Catti, taking new courage, ran to arms; but Caius Silius being detached against them, with 30,000 foot and 3000 horse, kept them in awe. Germanicus himself, at the head of a numerous body, made a sudden irruption into the territories of the Marsi, where he recovered one of Varus's eagles, and having laid waste the country, he returned to the frontiers of Germany, and put his troops into winter quarters; whence he was soon recalled by Tiberius, and never suffered to return into Germany again.

After the departure of Germanicus, the more northern nations of Germany were no-

more molested by the Romans. Arminius carried on a long and successful war with Maroboduus, king of the Marcomanni, whom he at last expelled, and forced to apply to the Romans for assistance, but, excepting Germanicus, it seems they had at this time no other general capable of opposing Arminius, so that Maroboduus was never restored. After the final departure of the Romans, however, Arminius having attempted to enslave his country, fell by the treachery of his own kindred. The Germans held his memory in great veneration; and Tacitus informs us, that in his time they still celebrated him in their songs.

Nothing remarkable occurs in the history of Germany from this time till the reign of the emperor Claudius. A war, indeed, is said to have been carried on by Lucius Domitius, father to the emperor Nero. But of his exploits we know nothing more than that he penetrated beyond the river Elbe, and led his army farther into the country than any of the Romans had ever done. In the reign of Claudius, however, the German territories were invaded by Cn. Domitius Corbulo, one of the greatest generals of his age. But when he was on the point of forcing them to submit to the Roman yoke, he was recalled by Claudius, who was jealous of the reputation he had acquired.

In the reign of Vespasian, a terrible revolt happened among the Batavians, and those German nations who had submitted to the Romans.

The revolters were with difficulty subdued; but, in the reign of Domitian, the Dacians invaded the empire, and proved a more terrible enemy than any of the other German nations had been. After several defeats, the emperor was at last obliged to consent to pay an annual tribute to Decebalus, king of the Dacians; which continued to the time of Trajan. But this warlike prince refused to pay the tribute; alledging, when it was demanded of him, that "he had never been conquered by Decebalus." Upon this the Dacians passed the Danube, and began to commit hostilities in the Roman territories. Trajan, glad of this opportunity to humble an enemy whom he began to fear, drew together a mighty army, and marched with the utmost expedition to the banks of the Danube. As Decebalus was not apprised of his arrival, the emperor passed the river without opposition, and, entering Dacia, laid waste the country with fire and sword. At last he was met by Decebalus, with a numerous army. A bloody engagement ensued, in which the Dacians were defeated, though the victory cost the Romans dear; the wounded were so numerous, that they wanted linen to bind up their wounds; and to supply the defect, the emperor generously devoted his own wardrobe. After the victory, he pursued Decebalus from place to place, and at last obliged him to consent to a peace on the following terms. 1. That he should surrender the territories which he had unjustly taken from the neighbouring nations. 2. That he should deliver up his arms, his warlike engines, with the artificers who made them, and all the Roman deserters. 3. That for the future, he should entertain no deserters, nor take into his service the natives of any country subject to Rome. 4. That he should dismantle all his fortresses, castles, and strong holds. And lastly, that he should have the same friends and foes with the people of Rome.

With these hard terms Decebalus was obliged to comply, though sore against his

will; and being introduced to Trajan, threw himself on the ground before him, acknowledging himself his vassal; after which, the latter, having commanded him to send deputies to the senate for the ratification of the peace, returned to Rome.

This peace was of no long duration. Four years after, A. D. 105, Decebalus, unable to live in servitude, began to raise men, provide arms, entertain deserters, fortify his castles, and invite the neighbouring nations to join him against the Romans as a common enemy. The Scythians hearkened to his solicitations; but the Jazyges, a neighbouring nation, refusing to bear arms against the Romans, Decebalus invaded their country. Hereupon Trajan marched against him; but the Dacian, finding himself unable to withstand him with open force, had recourse to treachery, and attempted to get the emperor murdered. His design, however, proved abortive; and Trajan pursued his march into Dacia. That his troops might the more readily pass and repass the Danube, he built a bridge over that river; which, by the antients, is stiled the most magnificent and wonderful of all his works. To guard the bridge, he ordered two castles to be built; one on this side the Danube, and the other on the opposite side; and all this was accomplished in the space of one summer. Trajan, however, as the season was now far advanced, did not think it advisable to enter Dacia this year, but contented himself with making the necessary preparations.

In the year 106, early in the spring, Trajan set out for Dacia; and having passed the Danube, on the bridge he had built, reduced the whole country, and would have taken Decebalus himself, had he not put an end to his own life, in order to avoid falling into the hands of his enemies. After his death, the kingdom of Dacia was reduced to a Roman province; and several castles were built in it, and garrisons placed in them, to keep the country in awe.

After the death of Trajan, the Roman empire began to decline, and the northern nations to be daily more and more formidable. The province of Dacia indeed was held by the Romans till the reign of Gallienus; but Adrian, who succeeded Trajan, caused the arches of the bridge over the Danube to be broken down, lest the barbarians should make themselves masters of it, and invade the Roman territories. In the time of Marcus Aurelius, the Marcomanni and Quadi invaded the empire, and gave the emperor a terrible overthrow. He continued the war, however, with better success afterwards, and invaded their country in his turn. It was during the course of this war, that the Roman army is said to have been saved from destruction by the prayers of the thundering legion.

In the end, the Marcomanni and Quadi were, by repeated defeats, brought to the verge of destruction; insomuch that their country would probably have been reduced to a Roman province, had not Marcus Aurelius been diverted from pursuing his conquests, by the revolt of one of his generals. After the death of Marcus Aurelius, the Germanic nations became every day more and more formidable to the Romans. Far from being able to invade and attempt the conquest of these northern countries, the Romans had the greatest difficulty to repress the incursions of their inhabitants.

The general effects which were produced by the irruption of the northern nations,

have been already described; and the particular changes that were produced in the western empire will be depicted in the succeeding books of this work. It is therefore sufficient, in the present instance, to say, that they were generally distinguished into two grand divisions; the Saxons, who dwelt on the south of the peninsula of Jutland; and the Normans, or Danes, who occupied the countries now called Denmark, Norway, and Sweden. The Saxons, for want of union, became tributary to the kings of France. But whenever the French throne was vacated by death, or the French monarchs employed in foreign or domestic wars, the Saxon princes usually threw off their allegiance, and invaded the territories of their liege lord.

Charlemagne had occasion to check one of these revolts immediately after the death of his brother; but as he had other concerns on his hands, the work was then but imperfectly executed.

In the year 775, having obtained the empire of the west, and thoroughly settled the affairs of Italy, he terminated this war, which had continued above 30 years.

Witikind, so deservedly celebrated by his nation, was the most eminent Saxon general during these hostilities. He frequently roused the drooping valour of his countrymen, and revived in their hearts the love of liberty. Nor were they wanting to him in attachment, for which they dearly paid. After an unsuccessful revolt, when they went to make submission to Charlemagne, he ordered 4500 of their principal men to be massacred, because they refused to deliver up their general. An equal instance of severity is not, perhaps, to be met with in the history of mankind. Witikind at last submitted, and embraced Christianity, continuing ever after faithful to his engagements. But he could never inspire his subjects with the same docile sentiments: they were continually revolting; and submitting only that they might revolt again. On the final reduction of their country, the more resolute retired into Scandivania, and joined the Normans or Danes.

We shall close this chapter with an account of this latter nation, and more particularly of their expeditions and discoveries, as given by Mr. Forster, the companion and historian of captain Cook. To which we shall also subjoin an extract, by the same hand, from the Saxon geography of Alfred; which merits the attention of the English reader, not only as it illustrates the geography of that age, but as it furnishes an idea of the extensive information that monarch possessed.

"Besides the Franks and Saxons, who seem to have acquired considerable knowledge of the maritime affairs and countries of the North, we also find, that, about the year 753 of the Christian æra, the Danes ventured with their ships as far as Thanet, on the Kentish coast, and ravaged the country. These were followed by three other Danish ships, which came from Hereddalande, and the crews of which even landed, A. D. 787, in Wessex, that part of the island which fell to the share of king Brithrik, or Beorhtric. In the year 793, the convent called Lindisfarne, on the island now called Holy island, was plundered of every thing in it by the Danes; who, having acquired additional courage, in consequence of the considerable booty they had made there, the year immediately following, viz. 794, plundered likewise the convent on the mouth of

the Tyne, which had been built there by king Egfrid. It was no unpleasing circumstance to these heathens, to find that the good monks had preserved in their convents such immense riches, which it was customary for the Christians in those days, in consequence of the opinion they entertained of the merit of good works, to heap up with bountiful hands in these repositories."

"The still more remote country of Ireland was not secure from the predatory invasions of the Danes. So early as the year 795, they appeared on the coasts of that island; and after having ravaged the Orkneys and the Western Islands, they made their appearance again so early as in 798, in Ulster, which province suffered greatly from their ravages. But long before this period, the Normans had made some predatory incursions into Ireland, as appears from the life of St. Findamus, who was of a noble family in that country, and had been carried off from thence by them. These pirates afterwards landed on the Orkney Islands, when Findamus ran away from them; and after having undergone various fortunes, having wandered through France and Lombardy, and remained four years in Alemania, he finally, in the year 700, embraced a monastic life."

"In general, we may observe, as an acknowledged fact, that all the different nations and people, which afterwards were known to the world under the denominations of Swedes, Danes, and Norwegians, were not distinguished by these names in the earliest ages; as the countries they inhabited were not at that time divided, so as to admit of it. Every petty district, sometimes even a small island, had its peculiar sovereign. No general name consequently could be bestowed on the whole country taken collectively. The petty sovereigns in these countries seem to have been mere feudatory lords, or lords of manors, who undertook expeditions by sea as well as by land with their vassals. Their mother country, as well on account of the small quantity of cattle on it, as in consequence of the neglected state of agriculture, was very unfruitful: they, therefore, after their subjects had once experienced the beneficial emoluments accruing from a piratical expedition, found no great difficulty in persuading them to fresh undertakings of this nature. The first ships which the northern nations made use of, were boats, either hollowed out of large trunks of trees, or else made of wicker, and cased over with leather. Long ships, of a larger size, were called Chiule, Cyule, Cool, an appellation whence the German and English term ship's-keel is derived, as well as the English word Keelman, i. e., people who work in the vessels belonging to the colliers. With these two kinds of vessels, neither of which were of any considerable size, the latter of them carrying 200 men at the most, these northern nations undertook their piratical expeditions. But the smallness of the number of men on board each vessel, was amply compensated by the multitude of the vessels themselves. Insomuch that even Tacitus, in those early ages, makes mention of the fleets of the Suiones. This people appears to have spread at first within the boundaries of the Baltic to Finland, Esthonia, and Courland, whither it was very easy for them to pass over from Gothland. The Normans, or rather the Norwegians, followed their own coasts, according to Ohther's description; consequently they circumnavigated the extreme point of their peninsula,

and of Europe, viz. the North Cape, and coming at last to the Cwen sea, arrived at the Dwina, and among the Biarmians that lived on its banks. The Danes sailed along the coast as far as the British Channel, and at length went to Britain itself."

"At the end of the 8th century, the Danes and Norwegians, who, taken collectively, bore the name of Normans, ventured to go to England, Scotland, the Orkney and Shetland islands, the Western islands, and even to Ireland; all which places they made the subjects of their depredations, carrying with them, wherever they went, desolation and slaughter. At length they succeeded in making themselves masters of Ireland, and remained such from the year 807 to 815. The Orkneys, the Shetland and Western islands, were now in like manner regularly peopled by the Normans. Some of them even formed the resolution of fixing themselves in Ireland. That attempt, however, did not succeed immediately, but they were obliged to put off the execution of their design to a more convenient time."

"The booty and wealth which they carried home, incited others among them to advance with their fleet along the coast of Britain to France, where, as has been observed, they first landed in 820, not having dared, in the reign of Charles the Great, to invade that coast. The indolence of Charles's successors, and the civil wars in which they were continually engaged, put it out of their power to make the necessary preparations on the north coast of France for repelling the Normans, who, rather excited than discouraged by the weak resistance they met with, repeated their attacks so frequently, that at last they prepared to make a complete conquest of these countries, and take possession of them."

"Though Egbert in England, upon the union of the lesser Saxon divisions, or, as they are called, the Heptarchy, became a powerful sovereign, yet the Normans did not suffer themselves to be intimidated by his power; but, in 832, made an attack on the Kentish coast, in which they met with success, carrying off with them abundance of booty; though the following year, having landed in Dorsetshire, they were obliged to make a precipitate retreat."

"About the year 835, the Normans went to Ireland, under their leader Turges, and maintained possession of their conquest for the space of 30 years."

"In 420, a fleet, fitted out by these people, made for the coast of France, where, having penetrated into the internal part of the kingdom, they committed great ravages. Some of them, indeed, in 844, proceeded as far as the coast of Andalusia; and even Pisa, in Italy, together with the once flourishing city of Luna, were brought into subjection by them, A. D. 857. But these were, in fact, their expeditions to the South, which we shall content ourselves with barely mentioning in this place."

"Their voyages, on the other hand, were continually more and more extended likewise in the northern regions. In the year 859, they went eastward to the coast of Esthonia, and brought the inhabitants of it under subjection; and in 862, three Normans, who were brothers, founded a new sovereignty in Novogorod and its vicinity."

"Just about this time, viz. in 861, one of these pirates, of the name of Naddod, was thrown by a storm on an island never before discovered; and called it, on account of

the snow, which lay on the high mountains belonging to it Schnée, or Snow-land. Naddodd was but a very short time in this newly discovered island; yet it appeared to him a very good country; in consequence of which, a Swede, by name Gardar Suafarsson, who was settled in Denmark, undertook an expedition to Snowland, in 864; and having sailed quite round it, named it Gardarholm, i. e. Gardar's Island. Here likewise he spent the winter; and going to Norway in the subsequent spring, reported that this newly discovered country was entirely covered with wood, and in other respects was a fine tract of land. This account of the place induced another Swede, of the name of Flochc, who, by his voyages, had acquired a great name, as well as the confidence of the people in the north, also to go thither. He arrived safe; but having wintered there likewise, on the northern side of the island, met with a great quantity of drift ice, on which account he gave this island the name of Iceland, a name it still bears. It should seem too that he was not at all pleased with the country, since he described it, on his return to Norway, as a very indifferent soil and situation. Some of his companions, on the contrary, gave it out as a country flowing with milk and honey. These contradictory reports seem to have damped in many people the desire of visiting this island. At last, in the year 874, Inglof and his friend Lief, resolved upon making another trial. Accordingly these two friends repaired thither together; and the country was so far from appearing to them in a bad light, that, on the contrary, its natural advantages induced them to settle there, which they did about four years afterwards. Ingolf took thither people, cattle, and all kinds of necessary tools and implements; and Lief, who, in the mean time, had been in England to the wars, carried thither his booty. The first discoverers of this island, from the circumstance of their having found some Irish books, bells, and bishops' crosiers on it, imagined that some people from Ireland had resided there previously to this period. But it appears more probable, that a party of Norman pirates, who had previously landed in Ireland, and carried off from thence a considerable booty, and among other things the above-mentioned articles, had been driven thither by a storm, as had been the case with Naddodd, and left these articles behind them."

"The contradictory reports concerning this country by the people who first visited it, must certainly have been exaggerated on both sides. However, it may be observed, that although those who first inhabited the island, doubtless considered it as an advantageous spot; yet the posture of affairs in the North at that juncture probably contributed much to their settlement in this cold region."

"About this time, Harold Schoenhaar, one of the petty sovereigns in Norway, began to conquer and bring into subjection the other chiefs of that country; and in 875, established the Norwegian monarchy. Gorm the Antient likewise attacked all his neighbours round him, and united the petty states in Jutland and the Danish islands into one; as Ingiald Illrode had done long before in Sweden. It was impossible for such great changes in the posture of affairs, and those so contrary to the old establishment, to be effected without making a vast number of malcontents. These, at this juncture, found a sure refuge in Iceland; and at length so many, even among the great people, and

some indeed of the blood royal, repaired to the new asylum, that king Harold thought proper, by way of putting a stop in some measure to these emigrations, to publish an edict, according to the tenor of which, no man was allowed to go to Iceland, without previously paying to the king half a mark of standard silver. The great wealth accumulated by the piratical practices of the whole collective body of bold Normans in these regions, from the year 516, when they first appeared off the French or Gallic coast, and consequently during a period of more than 360 years, must necessarily have extended the power of some of their petty sovereigns, and at the same time must have produced a gradual change in the manners, way of living, sentiments, and political establishments of the northern nations. Accordingly, it appears to me, says Mr. Forster, that the very piratical expeditions laid in some measure the foundation of the political changes that happened almost at one and the same time in the northern kingdoms."

"In the course of their expeditions, the people of these kingdoms became acquainted with the different states of Christendom in the South. On this occasion it was, that the most zealous among the monks, as well as many others, whose sole view was the acquisition of riches, and to lead a voluptuous life, resolved at length to get sent out to these countries as bishops. Consequently Christ and his pretended vicegerent, the pope, were soon preached among these people. The scriptures were introduced every where; codes of laws were compiled and committed to writing; and the rude and wild way of life in those people was considerably humanised. Commerce and various arts, as well as improvements in agriculture, gained ground; and these barbarous regions became in some measure enlightened, and the manners of their inhabitants refined."

"In the mean time the Danes had again invaded England, and that with so much success, that king Alfred, in the beginning of his reign was obliged to relinquish it entirely to the ravages of those plunderers. In Ireland they erected a sovereignty at Dublin, which fell to the share of Ainlav, or Olaf, as that at Waterford did to Sitrik, and that at Limerick to Ywar. In the year 868, the Ferro or Sheep Islands were discovered, and afterwards peopled, no inhabitants having been found on them. In like manner the Orkneys too were peopled with Normans, as also the Shetland islands. The same advantages attended the Hebrides, or Western Islands, as they are now called; though by the Normans, who came to them from the north and the Orkneys, they were denominated the Southern Islands. But soon after this, Alfred, emerging from his retirement, on a sudden made his appearance, and his subjects, by his appointments, likewise coming forward at a certain fixed time, immediately fell on the Danes quite unawares, and made great havock amongst them. Alfred did not choose to dispatch the remainder of his vanquished foes; but gave them their lives, and permitted them to live in Northumberland, a province which had been laid waste and depopulated by their country. By this humane conduct, he gained the hearts of even many of the Danes. Among others, there was a Norman at his court, by name Octher, who had made himself famous by his travels. There was another too a Jutlander, of the name of Wulfstan, who in like manner gave the king an account of his travels into Russia. All these accounts the learned prince collected with great care; and having purposed to give a

translation of the Ormesta of Orosius, in the Anglo-Saxon, his mother tongue, he interwove in this translation the relations of Octher and Wulfstan, with the result of the information he had got elsewhere concerning the state of the three parts of the world known at that period. It is very evident, from comparing them together, that Alfred's account of Europe is not that of Orosius, but rather that the English prince has principally set before us the state of Europe as it was in his own time. In fact, we are possessed of such slender information concerning the geography of the middle ages, that such an exhibition as this is of Europe and the northern regions, conformable to the ideas of that age, and that from so respectable a source, must be extremely valuable. shall therefore in this place insert that part of it which respects the North of Europe."

The Geography of the Northern Parts of Europe, according to King Alfred, almost literally translated from the Anglo-Saxon.

"Now we will also state those (i. e. the boundaries) of Europe, as much as we are informed concerning them. From the river Danais (Tanais) westward to the river Rhine, which takes its rise in the Alps, whence it runs northward to the arm of the ocean that surrounds Britannia, and south to the river Donua or Danube, whose source is near that of the Rhine, and runs eastward in the north of Greece, till it empties itself into the Wendel sea, or Mediterranean, and north even unto the ocean, which men call Cwen sea (or the White sea). Within this are many nations, and the whole of this tract of country is called Germany."

"Hence to the north of the source of the Danube, and to the east of the Rhine, are the East Franconia, and to the south of them are the Swæfas, or Suevæ; on the opposite bank of the Danube, and to the south and east are the Bægthware, in that part which is called Regnesburgh. Due east from hence are the Beme, and to the north-east the Thyringas; to the north of these are the Old Seaxan, to the north-west are the Frysan, and to the west of Old Seaxum is the mouth of the Aelfa or Elbe, as also Frysan or Friesland. Hence to the north-west is that land which is called Angle Sillende, and some part of Dena."

"To the north is Apdrede; and to the north-west the Wolds, which are called Aelfeldan; from hence eastward is Winedaland, which men called Sysyle. To the south-east at some distance is Maroarohave, to the west the Thyringas and Behemas, as also part of the Bægthware; and to the south, on the other side of the Donua, is the country called Carendra."

"Southwards, along the mountains which are called the Alpis, lie the boundaries of Bægthware, as also Swæva; and then to the eastward of the Carendre country, and beyond the Waste, is Pulgaraland or Bulgaria; to the east is Grecaland or Greece; to the east of Maroara is Wisleland, and to the east of that is Datia, though it formerly belonged to the Gottan or Goths. To the north-east of Moroara are the Delamensan. East of Delamensan are the Horithi; and north of the Delamensan are the Surpe, to the west also are the Syssele. To the north of the Horithi is Maegthaland, and to the north of Maegthaland is, Sermendia, quite to the Riffin or Riphæan mountains."

"To the south-west of Dena is that arm of the ocean that surrounds Britannia, and to the north is that arm of the sea which is called Ost sea, to the east and to the north are the North Dene, either on the continent or on the island, to the east are the Afdrede; to the south is the mouth of the Elbe, and some part of Old Saxony. The North Dene have, to the northward, that same arm of the sea which is called Ost sea. To the east is the nation of the Osti; and Afdrede to the south. The Osti have, to the north of them, that same arm of the sea, so are the Winedas and the Burgendas. And still more to the south is Haefeldan. The Burgendan have this same arm of the sea to the west, and the Sveon to the north; to the east are the Sermende, to the south the Surfe. The Sveons have to the south the arm of the sea called Osti, and to the north, over the wastes, is Cwenland, to the north-west are the Scride Finnas, and to the west the Northmen."

"Ohthere told his lord, king Ælfred, that he lived to the north of all the Northmen. He quoths that he dwelt in that land to the northward, opposite to the West sea; he said, however, that the land of the Northmen is due north from that sea, and it is all a waste, except in a few places, where the Finnas for the most part dwell, for hunting in the winter, and in summer for fishing in that sea. He said that he was determined to find out, once on a time, how far this country extended due north, or whether any one lived to the north of the wastes before mentioned. With this intent he proceeded due north from this country, leaving all the way the waste land on the starboard or right hand, and the wide sea to the beacherd or left. He was within three days as far north as the whale hunters ever go, and then proceeded in his course due north, as far as he could sail within another three days, whilst the land lay from thence due east. Whether the sea there lies within the land, he knows not; he only knows, that he waited there for a west wind, or a point to the north, and sailed near that land eastward as far as he could in four days, where he waited for a due north wind, because the land there lies due south. Whether the sea lies within the land he knows not. Upon this he sailed along this country due south, as far as he could in five days."

"Upon this land there lies a great river, at the mouth of which they lay to, because they could not proceed far further on account of the inhabitants being hostile, and all that country was inhabited on one side of this river, nor had Ohthere met before with any land that was inhabited since he came from his own. All the land to his right, during his whole voyage, was a desert, and without inhabitants, except fishermen, fowlers, and hunters, all of whom were Finnas, and he had a wide sea to his left. The Beormas, indeed, had well peopled their country, for which reason Ohthere did not dare to enter upon it; on the other hand, the Terfenna land was all a desert, except when it was thus inhabited by fishers and fowlers."

"The Beormas told them many particulars about their land, as well as of the other countries near them; but Ohthere could not rely upon their accounts, because he had not an opportunity of seeing with his own eyes; it seemed, however, to him, that the Beormas and the Finnas spoke the same language. He went the rather, and shaped his course to each of these countries, on account of the horse-whales, because they

have very good bone in their teeth, some of which he brought to the king, and their hides are good for ship ropes. This sort of whale is much less than the other kinds, it being not longer commonly than seven ells; but Ohthere says, that in his own country is the best whale hunting, because the whales are 48 ells long, and the largest 50; that he has killed 66 in two days."

"Ohthere was a very rich man in such goods as are valuable in those countries; namely, in wild deer, and had at the time he came to the king, 600 tame deer, none of which he had purchased; besides this, he had six decoy rein-deer, which are very valuable amongst the Finnas, because they catch their wild ones with them."

"Ohthere himself is one of the most considerable men in these parts, and yet he had not more than 20 horned cattle, 20 sheep, and 20 swine; and what little he plowed was with horses. The rents in this country consist chiefly of what is paid by the Finnas, in deer skins, feathers, whale-bone, and ship ropes, made of whales' hides, or those of seals. Every one pays according to his substance; the wealthiest pay the skins of 15 martens, five rein-deers, one bear's skin, ten hampers full of feathers, a cloak of the bear's or otter's skin, two ship ropes, each 60 ells long, one made of whale's and the other of seal skin."

"Ohthere moreover said, that Northmanna-land was very long and narrow, and that all of the country which is fit for either pasture or plowing, is on the sea-coast; which, however is in some parts very rocky; to the eastward are wild moors parallel to the cultivated land. The Finnas inhabit these moors, and the cultivated land is broadest to the eastward, and grows narrower to the northward. To the east it is 60 miles broad, in some places broader; about the middle it is perhaps 30 miles broad, or somewhat more; to the northward, where it is narrowest, it may be only three miles from the sea to the moors, which are in some places so wide, that a man could scarce pass over them in a fortnight, and in other parts perhaps in six days."

"Opposite to this land, to the south, is Sweoland, on the other side of the moors; quite to the land northward, and opposite to that again to the north, is Cwenaland. The Cwenas sometimes make incursions against the Northmen over the moors, and sometimes the Northmen on them; there are very large fresh meres amongst the moors, and the Cwenas carry their ships over land into the meres, whence they make depredations on the Northmen: their ships are small and very light."

"Ohthere said also that the shire which he inhabited is called Halgoland, and that no one dwelt to the north of him; there is likewise a part of this southern land, which is called Sciringes-heal, which no one could reach in a month, if he lay to at night, though he had every day a fair wind; during this voyage he must sail near the land; on his right hand would be Iraland, and then the islands which are between Iraland and this land. For this country is to Sciringes-heal, all the way to the left. As you proceed northward, a great sea to the southward of Sciringes-heal, runs up into this land; and is so wide, that no one can see across it. Gotland is opposite on the other side, and afterwards the sea of Sillende lies many miles up in that country. Ohthere further says, that he sailed in five days from Sciringes-heal to that port which men

call Haethum, which is between the Winedum, Seaxum, and Anglen, and makes part of Dene."

"When Ohthere sailed to this place from Sciringes-heal, Denmark was on his left, and on the right was a wide sea for three days, as were also two days before he came to Haethum, Gotland, Sillende, and many islands (these islands were inhabited by the Angles before they came hither); and for two days the islands which belong to Dene were on the left."

"Wulfstan said, that he went from Haethum to Truso in seven days and nights, the ships being under sail all the time, that Weonothland was on his right, but Langaland, Laeland, Falster, and Sconeg, on his left, all of which belong to Denemearcan. We had also Burgendaland to our left; which hath a king of its own. After having left Burgendaland, the islands of Becinga-eg, Meore, Eowland, and Gotland, were on our left, which country belongs to Sueon; and Weonodland was all the way on the right, to the mouth of the Wisle. This river is a very large one, and near it lies Witland and Weonodland, the former of which belongs to Estum, and the Wisle does not run through Weonodland, but through Estmere, which lake is 15 miles broad. Then runs the Ilfing from the eastward into Estmere, on the bank of which stands Truso; and the Ilfing flows from Eastland into the Estmere from the east; and the Wisle from Weonodland from the south: the Ilfing, having joined the Wisle, takes its name, and runs to the west of Estmere, and northward into the sea, when it is called the Wisle's mouth. Eastland is a large tract of country, and there are in it many towns, and in every town is a king; there is also a great quantity of honey and fish; and the king and the richest men drink mare's milk, whilst the poor and the slaves use mead. They have many contests among themselves: and the people of Estum brew no ale, as they have mead in profusion."

"There is also a particular custom amongst this nation, that when any one dies, the corpse continues unburnt with the relations and friends for a month or two, and the bodies of kings and nobles lie longer, according to their respective wealth, sometimes for half a year, before the corpse is thus destroyed, and it continues above ground in the house; during which time drinking and sports last, till the day on which the body is consumed. Then, when it is carried to the funeral pile, the substance of the deceased, which remains after their drinking bouts and sports, is divided into five or six heaps, sometimes into more, according to what he happens to be worth. These heaps are disposed at a mile's distance from each other, the largest heap at the greatest distance from the town, and so gradually the smaller at lesser intervals, till all the wealth is divided, so that the least heap shall be nearest the town where the corpse lies. Then all those are to be summoned who have the fleetest horses in that country, within the distance of five or six miles from these heaps, and they all strive for the substance of the deceased; he who hath the swiftest horse obtains the most distant and largest heap, and so the others, in proportion, till the whole is seized upon. He procures, however, the least, who takes that which is nearest the town; and then every one rides away with his share, and keeps the whole of it. On account of this custom, fleet horses are extremely

dear. When the wealth of the deceased hath been thus exhausted, then they carry the corpse from the house to burn it, together with the dead man's weapons and clothes; and generally they spend the whole wealth of the deceased, by the body's continuing so long in the house before it is buried; and by what is laid in heaps on the road, and is taken away by the strangers."

"It is also a custom with the Estum, that the bodies of all the inhabitants shall be burned; and if any one can find a single bone unconsumed, it is a cause of anger. These people also have the means of producing very severe cold, by which the dead body continues so long above ground without putrefying; and if any one sets a vessel full of ale or water, they contrive that the liquor shall be frozen, be it summer or winter.

CHAPTER III

GERMANY AND THE NORTH——*From the rise of the German Empire, to the accession of Radolphus of Hapsburg.*

WE have related in the preceding chapter, the reduction of the Saxons and other Germans, under the power of Charles the Great of France; and also intimated that as he did not transmit the sceptre to hands as able as his own, the unconquered Normans frequently invaded the empire; and generally obliged its possessors to permit them to carry off their booty. The empire was, however, soon to receive a deeper wound, proceeding from the following cause.

Though the successors of Charlemagne possessed their dignity by virtue of hereditary descent, they had usually procured the consent of the nobles to their testamentary deeds, that no dispute might arise in regard to the succession. What was at first no more than a political condescension in the emperor, became gradually to be interpreted into a privilege of the nobility; and hence originated the right of those electors, by whom the emperor is still invested with the imperial power and dignity. They already deposed Charles the Fat, and raised to the empire Arnold, bastard of Carloman, king of Bavaria.

Thus authorised by custom, the German nobles assembled at Worms, on the death of Louis IV. and not judging Charles the Simple worthy to govern them, they offered the imperial crown to Otho, duke of Saxony; but he declined it, on account of his age; and with a generosity peculiar to himself, recommended to the electors Conrad, count of Franconia, though his enemy. Conrad was accordingly chosen by the diet.

The empire of Germany then comprehended Franconia, the provinces of Bamberg, Suabia, Constans, Basil, Bern, Lausanne, Burgundy, Bezancon, Lorrain, Metz, Liege, Canbray, Arras, Flanders, Holland, Zealand, Utrecht, Cologne, Treves, Mentz, Worms, Spire, Stratsburg, Friezland, Saxony, Hesse, Westphalia, Thuringia, Wetteravia, Misnia, Brandenburg, Pomerania, Rugen, Stetin, Holstein, Austria, Carinthia, Stiria, the Tyrolese, Bavaria, the Grisons; and in general, all the countries situated among the provinces of their dependencies.

The reign of Conrad I. was one continued scene of troubles, though he took every necessary measure to support his authority and preserve the tranquillity of the empire. He was no sooner elected than he had occasion to march into Lorrain; where the nobility, being attached to the family of Charlemagne, acknowledged Charles the Simple as their sovereign, and offered to put him in possession of that country. Before Conrad could settle the affairs of Lorrain, he was recalled by the revolt of several powerful dukes, who envied his promotion. One rebellion succeeded another; and, to complete his misfortunes, the Huns, or Hungarians, invaded the empire. They had for

some time been accustomed to pass the intrenchments formed by Charlemagne along the Raab, in order to restrain their incursions; and, no less fierce than their ancestors, they had laid every thing waste before them, and borne down all opposition. In 901, they ravaged Bavaria, Suabia, Franconia: all Germany felt their fury. Louis IV. submitted to pay them an annual tribute. They had several times pillaged Italy; and now in their way from that country, where they had humbled Berengarius, (taking the advantage of the troubles of the empire) they made irruptions into Saxony, Thuringia, Franconia, Lorrain, and Alsace, which they desolated with fire and sword, and obliged Conrad to purchase a peace on the most shameful conditions. He died without male heirs, in 919, after recommending to the Germanic body as his successor, Henry, duke of Saxony, son of that Otho to whom he owed his crown.

Henry I. surnamed the Fowler, because he delighted much in the pursuit of birds, was elected, with universal approbation, by the assembled states; composed of the dignified clergy, the principal nobility, and the heads of the army.

It was still undecided whether Lorrain should belong to France or Germany: Henry, as soon as the situation of his affairs would permit, entered it with a powerful army, and subdued the whole country. His next care was the internal peace and prosperity of the empire. He published a general amnesty in favour of all thieves and banditti, provided they would enlist in his armies, and actually formed them into a troop. He created marquises, in imitation of Charlemagne, to guard the frontiers of the empire against the barbarians; and obliged all vassals and sub-vassals to furnish soldiers, and corn for their subsistence. He likewise ordered the principal towns to be surrounded with walls, bastions, and ditches; and, that the nobility might be habituated to the use of arms, even in time of peace, he instituted certain military games, or tournaments, in which they vied with each other in displaying their valour and address.

After taking these wise measures for the welfare of the state, Henry began to prepare for war against the Hungarians, whom he had exasperated by refusing the annual composition, and other marks of disdain and defiance. Enraged at his firmness, they entered Germany with an army of 300,000 men, breathing vengeance. But Henry, being supported by the whole force of his dominions, though still inferior to theirs, defeated them, with great slaughter, at Mersbourgh, and rescued the empire from a barbarous enemy and an ignominious tribute.

Having thus subdued his enemies, and secured the tranquillity of his subjects, both at home and abroad, the emperor began to taste the fruits of his wisdom and valour, when the pope and the citizens of Rome invited him to the conquest of Italy, still distracted by civil wars, offering him the holy unction, and the title of Augustus. Henry, who was ambitious to be master of Italy, and no doubt desirous of the papal sanction to the imperial crown, set out immediately for that country at the head of his troops; but being seized with an apoplexy on his march, he was obliged to return, and died at Mansleben, in Thuringia. Before his death, he convoked the princes of the empire, who settled the succession on his son Otho.

Otho I. the most powerful emperor since Charlemagne, and who had the honour of

re-uniting Italy to the imperial dominions, was elected at Aix-la-Chapelle in 936, by the unanimous consent of the diet there assembled, according to the promise made to his father, Henry the Fowler. He began his reign with the most upright administration, and seemed desirous to live in peace and tranquillity. But his quiet was soon interrupted by wars, both foreign and domestic, which he had sufficient abilities to manage, and which terminated in his aggrandizement.

The Hungarians, according to custom, invaded the empire, committing every species of barbarity. Otho, however, soon put a stop to their ravages. He came up with them on the plain of Dortmund, in Westphalia, and defeated them with great slaughter. But the Hungarians were not the only enemy Otho had to encounter. Immediately after his return from this victory, he was informed that the Bohemians had revolted. Bohemia was then entirely barbarous, and mostly pagan. Otho, after a variety of struggles, rendered it tributary to Germany, and also obliged the inhabitants to embrace Christianity.

In the mean time, the emperor was engaged in many disputes with his own rebellious subjects. Arnold, duke of Bavaria, being dead, his son Everhard refused to do homage to Otho, on pretence that he was not his vassal, but his ally. Otho, therefore, entered that country with an army, expelled Everhard, and bestowed the duchy upon his uncle Bartlof, who willingly did homage for such a present. The emperor, at the same time, created one of Everhard's brothers count palatine of Bavaria, and the other count palatine of the Rhine.

This dignity of count palatine was revived from the counts of the palace of the Roman and French emperors. These palatines were at first supreme judges, and gave judgment in the last appeal, in the name of the emperor. They were also entrusted with the government of the imperial domains.

Otho now found leisure to extend his empire toward the north. Gormon, the old king of Denmark, had been obliged to relinquish his claim to Saxony, and suffer Henry the Fowler to build and garrison a city in Sleswick. This city was destroyed by Harold VI. the successor of Gormon, who thus exposed himself to the resentment of Otho. Otho penetrated to the shores of the Baltic, and filled Denmark so effectually with the terror of his arms, as to oblige its inhabitants to erect a strong wall cross the isthmus of Sleswick, in order to defend themselves against future invasions.

He died in 973, after a reign of 36 years; during which, by his generosity and courage, he had justly acquired the appellation of Otho the Great, the emperor of Italy, and the restorer of the empire of Charlemagne.

Otho II. surnamed the Sanguinary, on account of the blood spilt under his reign, succeeded his father at the age of 18. His youth occasioned troubles, which his valour enabled him to dissipate. Henry, duke of Bavaria, and several other noblemen rebelled, but were all reduced in a short time.

The north was not at this time in any condition to excite many fears in the breasts of the Germans. Swen, the son of Harold, was the first Danish monarch who had been bred from his youth and publicly baptized in his infancy according to the Chris-

tian faith ; yet he had no sooner ascended the throne, than he re-established paganism, to gratify the prejudices of his nobility. This apostacy was followed by misfortunes. He was twice expelled from Denmark, and obliged, in the last instance, to reside 14 years in Scotland. After he regained his kingdom, restored the faith, and was attended with great prosperity.

Italy, in the mean time, occupied the attention of Otho. He had marched to Rome, and chastised such as rebelled against him ; but attempting to wrest Calabria from the Greeks, his army was cut in pieces by the Saracens, whom the Greeks had called in to their assistance.

He died soon after at Rome, while preparing to take revenge on the enemy.

Otho III. already elected emperor, succeeded his father at 12 years of age ; and his uncle and his mother disputing the administration, Germany was disquieted by a turbulent regency, while Rome became a prey to new factions, and the scene of new crimes. Crescentius blew the trumpet of liberty, and persuaded the Romans they were still free, that he might have it in his power to enslave them.

But when the emperor, who proved a brave and enterprising prince, came of age, all things were soon reduced into order. He defeated the Danes who had invaded the empire, and entered into a friendly alliance with Eric, king of Sweden, Denmark, and Norway, on condition that German missionaries should be allowed to preach the gospel in his dominions ; a great concession in those times, and highly mortifying to the worshippers of Odin.

The affairs of the north being settled, Otho marched into Italy, and caused Crescentius to be beheaded. He expelled the Saracens from the Campania of Rome, and was soon after poisoned by a pair of gloves, sent to him by the widow of Crescentius, whom he had debauched under a promise of marriage.

The empire sustained a great loss in the death of this prince, who was equally brave, resolute, and just ; and by a glorious reign of 18 years, changed the surname of Infant, which was given to him at his accession, into that of Wonder of the World.

As Otho III. died without children, a number of competitors started up from the empire, three of whom were supposed alike qualified to wear the imperial crown ; Henry, duke of Bavaria, Herman, duke of Suabia, and Ekkard, marquis of Saxony. But the duke of Bavaria, being grandson to Otho II. by the female line, was elected, in consequence of his superior power, and confirmed and consecrated under the name of Henry II.

The reign of Henry was chiefly filled up with Italian commotions. He was crowned king of Italy at Milan ; but was soon after the performance of the ceremony, in danger of being murdered by the populace. He, however, subdued his enemies, and was crowned emperor at Rome, by pope Benedict VIII.

Cloyed with success, sick of human greatness, or the toils of empire, and charmed with the tranquillity of a monastic life, Henry had for some time expressed a desire of retiring from the world, and now actually took the religious habit. But the abbot of

St. Vall, when he received the emperor as a brother, wisely imposed the following command upon him ; " Monks owe obedience to their superior," said he, " I order you to continue at the helm of government."

In consequence of this injunction, Henry consented to wear the crown, and increased in prosperity to the hour of his death.

Great disputes ensued on the death of Henry II. about the nomination of a successor to the empire ; that prince dying without issue. The princes and states assembled in the open fields between Mentz and Worms, no hall being sufficient to hold them ; and, after six weeks encampment and deliberation, they elected Conrad, duke of Franconia, surnamed the Salic, because he was born on the banks of the river Sala.

The Lombards revolting, as usual, soon after the election of the new emperor, Conrad marched into Italy ; and having reduced the rebels by force of arms, he went to Rome, where he was consecrated and crowned by pope John XX. in presence of Canute the Great, king of England, Denmark, and Norway, and Rodolph III. king of Transjurane Burgundy. But his stay at Rome was short. Scarce was the coronation over, when he was obliged to return to Germany, on account of some insurrections raised in his absence. He took the precaution, however, before he attempted to humble the insurgents, to get his son Henry, then above 12 years of age, declared his successor, and solemnly crowned at Aix-la-Chapelle. The rebellion was soon after suppressed by the valour of Conrad. He defeated the authors of it in several engagements ; in one of which, Ernest, duke of Suabia, who had been put to the ban of the empire, was slain.

The word ban originally signified banner, afterwards edict, and lastly, a declaration of outlawry, which was intimated thus : " We declare thy wife a widow, thy children orphans ; and send thee, in the name of the devil, to the four corners of the earth." This is one of the first examples of that proscription.

The emperor next turned his arms against the Poles, and afterwards against the Huns, and obliged both to subscribe to his own conditions. In the mean time, Rodolph, king of Transjurane Burgundy, dying without issue, left his dominions to Conrad. They were of small extent, but included the seignioral superiority over the Swiss, the Grisons, Provence, Franche-Compte, Savoy, Geneva, and Dauphine. Hence the lands on the other side of the Rhine are still called the lands of the empire ; and all the noblemen of those cantons, who formerly held of Rodolph and his predecessors, now hold of the emperor.

While Conrad II. was employed in taking possession of his new inheritance, the Poles revolted : and this rebellion was no sooner quelled, than he had occasion to compose another in Italy, headed by Hubert, bishop of Milan, whom he had loaded with favours. Conrad made so much haste, that Milan was taken by surprise. The bishop was condemned to perpetual banishment ; and the emperor died soon after his return to Germany, leaving behind him the reputation of a just, generous, and magnanimous prince.

Henry III. surnamed the Black, son of Conrad and Gisella of Suabia, was elected

in consequence of his father's recommendation, and crowned a second time at Aix-la-Chapelle.

The first years of Henry's reign were signalized by successful wars against Bohemia, Poland, and Hungary; which, however, produced no memorable event.

After a reign spent in regulating the concerns of Italy, Henry died, in the 39th year of his life, A. D. 1056.

Henry IV. surnamed the Great, was only five years old at his father's death. He was immediately acknowledged emperor, in a diet of princes convoked at Cologne, and the care of his education was committed to his mother Agnes, who also governed the empire. She was a woman of spirit and address, and discharged both her public and private trusted with diligence and ability.

Germany, during the first years of this reign, was harassed with civil wars; so that the empress Agnes, notwithstanding her strong talents, found a difficulty to maintain her authority. And at length the dukes of Saxony and Bavaria, uncles of the young emperor, carried him off from her by stratagem, accusing her of sacrificing the public welfare to the will of the bishop of Augsburg, her minister and supposed gallant. Thus divested of the regency, she fled to Rome, and there took the veil.

Henry was now put under the tuition of the archbishops of Cologne and Bremen, who discharged their trust in a very opposite manner. The first endeavoured to inspire him with a love of learning and virtue; while the second sought only to acquire an ascendency over his passions, by indulging him in all the pleasures of youth. This indulgence produced a habit of licentiousness, which he never afterwards restrained.

Henry IV. assumed the reins of government at the age of 22, and began his administration with restraining the thefts, robberies, and extortions, which his subjects of the duchy of Saxony exercised upon strangers, as well as upon each other. But the Saxon princes and nobles, who were gainers by the abuses, particularly by the infamous practice of imprisoning travellers, and making them pay for their ransom, opposed the intended reformation, and entered into an association against the emperor, under pretence that their liberties were in danger. In this rebellious disposition they were encouraged by the arrogance of pope Alexander II.; who, at the instigation of Hildebrand, his confidant and oracle, summoned Henry to appear before the tribunal of the holy see, on account of his loose life, and to answer the charge of having exposed the investiture of bishops to sale.

Henry treated the pope's mandate with the contempt it deserved; and at the same time carried on war with vigour against the Saxons, and their rebellious associates, whom he totally routed, in a bloody engagement, and made himself master of all Saxony. The heads of the rebellion asked pardon of the emperor in public, and begged to be restored to his favour: he generously accepted their submission, and peace was restored to Germany.

The contest between the emperor and the popes was attended with much bloodshed in Germany and Italy; and at length, A. D. 1101, Paschal II. excited young Henry to rebel against his father, under pretence of defending the cause of the orthodox;

alledging, that he was bound to take upon himself the reins of government, as he could neither acknowledge a king nor a father that was excommunicated.

In vain did the emperor use every paternal remonstrance to dissuade his son from proceeding to extremities: the breach became wider and wider, and both prepared for the decision of the sword. But the son, dreading his father's military superiority, and confiding in his tenderness, made use of a stratagem, equally base and successful. He threw himself unexpectedly at the emperor's feet, and begged pardon for his undutiful behaviour, which he imputed to the advice of evil counsellors. In consequence of this submission, he was immediately taken into favour, and the emperor dismissed his army. The ungrateful youth now bared his perfidious heart: he ordered his father to be confined, while he assembled a diet of his own confederates, at which the pope's legate presided, and repeated the sentence of excommunication against the emperor Henry IV. who was instantly deposed, and the parricidious usurper, Henry V. proclaimed.

The archbishops of Mentz and Cologne were sent as deputies to the old emperor, to intimate his deposition, and demand the crown and other regalia. Henry received this deputation with equal surprise and concern; and finding the chief accusation against him was, "the scandalous manner in which he had set bishoprics to sale," he thus addressed the audacious ecclesiastics; "If we have prostituted the benefices of the church for hire, you yourselves are the most proper persons to convict us of that simony. Say then, I conjure you, in the name of the eternal God! what we have exacted, or what we have received, for having promoted you to the dignities which you now enjoy."

They acknowledged he was innocent as far as regarded their preferment: "And yet," continued he, "the archbishoprics of Mentz and Cologne, being two of the best in our gift, we might have filled our coffers by exposing them to sale. We bestowed them, however, on you, out of free grace and favour; and a worthy return you make to our benevolence! Do not, we beseech you, become abettors of those who have lifted up their hand against their lord and master, in defiance of faith, gratitude, and allegiance."

The two archbishops, unmoved by that pathetic address, insisted on his compliance with the purport of their errand. On this he retired, and put on his royal ornaments; then returning to the apartment he had left, and seating himself on a chair of state, he renewed his remonstrance in these words: "Here are the marks of that royalty with which we were invested by God and the princes of the empire: if you disregard the wrath of Heaven and the eternal reproach of mankind so much as to lay violent hands on your sovereign, you may strip us of them. We are not in a condition to defend ourselves."

This speech had no more effect than the former upon the unfeeling prelates, who instantly snatched the crown from his head; and dragging him from his chair, pulled off his royal robes by force. While they were thus employed, Henry exclaimed, "Great God!" the tears trickling down his venerable cheeks, "thou art the God of vengeance, and wilt repay this outrage. I have sinned, I own, and merited such shame by the follies

of my youth; but thou wilt not fail to punish these traitors, for their perjury, insolence and ingratitude."

To such a degree of wretchedness was this unhappy prince reduced by the barbarity of his son, that, destitute of the common necessaries of life, he entreated Gertrard, bishop of Spire, whom he had created, to grant him a canonicate for his subsistence; representing that he was capable of performing the office of chanter or reader! Being denied that humble request, he shed a flood of tears, and turning to those who were present, said with a deep sigh, "My dear friends, at least have pity on my condition, for I am touched by the hand of the Lord!" The hand of man, at least, was heavy upon him; for he was not only in want, but under confinement.

In the midst of these distresses, when every one thought his courage was utterly extinguished, and his soul overwhelmed by despondency, Henry found means to escape from his keepers, and reached Cologne, where he was recognized as lawful emperor. He next repaired to the Low Countries, where he found friends, who raised a considerable body of troops to facilitate his restoration; and he sent circular letters to all the princes of Christendom, in order to interest them in his cause. He even wrote to the pope, giving him to understand, that he was inclined to an accommodation, provided it could be settled without prejudice to his crown. But before any thing material could be executed in Henry's favour, he died at Liege, in the 56th year of his age, and the 49th of his reign. He was a prince of great courage, and excellent endowments both of body and mind. There was an air of dignity in his appearance that spoke the greatness of his soul. He possessed a natural fund of eloquence and vivacity; was of a mild and merciful temper; extremely charitable; and an admirable pattern of fortitude and resignation.

Henry V. put the finishing stroke to his barbarous, unnatural, and hypocritical conduct, by causing his father's body, as the carcase of an excommunicated wretch, to be dug out of the grave where it was buried, in the cathedral of Liege, and carried to a cave at Spire.

But, notwithstanding his obligations and seeming attachment to the church, this paricidical zealot no sooner found himself established upon the imperial throne, than he maintained that right of investiture, in opposition to which he had taken arms against his father, and the exercise of which was thought to merit anathemas so frightful as to disturb the sacred mansions of the dead.

The contest between Henry V. and the pope was carried on till such time as the states of the empire, quite tired with this long quarrel, unanimously supplicated Henry for peace. He referred himself entirely to their decision: and a diet being assembled at Worms, it was decreed, that an embassy should immediately be sent to the pope, desiring that he would convoke a general council at Rome, by which all disputes might be determined. Calixtus accordingly called the famous council, which was opened during Lent, and at which were present 300 bishops and about 700 abbots.

The imperial ambassadors being heard before the grand assembly, the affair of investitures was at length settled, with their consent, on the following conditions: "That

for the future, the bishops and abbots shall be chosen by the monks and canons; but that this election shall be made in presence of the emperor, or of an ambassador appointed by him for that purpose: that, in case a dispute arise among the electors, the decision of it shall be left to the emperor, who is to consult with the bishops on that subject; that the bishop or abbot elect shall take the oath of allegiance to the emperor, receive from his hand the regalia, and do homage for them; that the emperor shall no longer confer the regalia by the ceremony of the ring and crozier, which are the ensigns of a ghostly dignity, but by that of the sceptre, as more proper to invest the person elected in the possession of the rights and privileges merely temporal."

Henry died at Utrecht a few years after his accommodation with Rome. He was a wise, politic, and resolute prince: and, exclusive of his unnatural behaviour to his father, was worthy of the imperial throne. He married Maud, or Matilda, daughter of Henry I. king of England, by whom he had no children; so that the empire was left without a head.

As Henry V. left no issue, it was universally believed that the states would confer the empire on one of his nephews, Conrad, duke of Franconia, or Frederic, duke of Suabia, who were princes of great merit: but Albert, archbishop of Mentz, found means to influence the German chiefs to give their suffrages in favour of Lothario, duke of Saxe-Supplembourg, who had supported him in all his contests with the late emperor. Lothario was accordingly crowned at Aix-la-Chapelle, in presence of the pope's nunioc. Mean while, his two competitors neglected nothing in their power to obtain the throne. But after a short opposition, which was, however, obstinate and bloody, they dropped their pretensions, and were reconciled to Lothario, who afterwards honoured them with his friendship.

The first expedition of the new emperor was against the Bohemians, whom he obliged to sue for peace, and do homage to the empire.

He next marched into Italy, were affairs, as usual, where in great disorder. He was crowned at Rome, and on his return ordered justice to be administered in the empire according to the then newly discovered code of Justinian.

On his way to Germany, after a second Italian expedition, Lothario was seized with a dangerous distemper, which carried him off near Trent, in the 12th year of his reign. He was distinguished by a passionate love of peace, and an exact attention to the administration of public justice.

Conrad, duke of Franconia, Nephew to Henry V. was unanimously elected emperor on the death of Lothario. But the imperial throne was disputed by Henry the Haughty, duke of Bavaria, the name of whose family was Guelph; hence those who espoused his party were called Guelphs, an appellation afterwards usually bestowed on the enemies of the emperors.

Henry the Haughty died during this contest, after being divested of his dominions by the princes of the empire; but the war was still carried on against the emperor by Guelph the duke's brother, and Roger king of Sicily. The imperial army was commanded by Frederic, duke of Suabia, the emperor's brother, who, being born at the

village of Hieghibelin, gave to his soldiers the name of Ghibelins; an epithet by which the imperial party was distinguished in Italy, while the pope's adherents grew famous under that of Guelphs.

Guelph and his principal followers were besieged in the castle of Weinsberg; and having sustained great loss in a sally, they were obliged to surrender at discretion. The emperor, however, instead of using his good fortune with rigour, granted the duke and his chief officers permission to retire unmolested. But the duchess, suspecting the generosity of Conrad, with whose enmity against her husband she was well acquainted, begged that she and the other women in the castle might be allowed to come out with as much as each of them could carry, and be conducted to a place of safety. Her request was granted, and the evacuation was immediately performed; when the emperor and his army, who expected to see every lady loaded with jewels, gold, and silver, beheld, to their astonishment, the duchess and her fair companions staggering beneath the weight of their husbands. The tears ran down Conrad's cheeks, he applauded their conjugal tenderness, and an accommodation with Guelph and his adherents was the consequence of this act of female heroism.

The north presented a more settled and civilized appearance than it had done in former ages. Canute the Great had raised Denmark to a respectable rank among the Christian kingdoms. Denmark, Sweden, Norway, and England, were tributaries to him; his alliance was courted by the greatest monarchs; even the emperor Conrad II. sought his daughter in marriage, and voluntarily relinquished his claim to Holstein. In the latter part of his life, he divided his dominions among his three sons; to Harold he assigned England; to Hardicanute, Denmark; and to Sweyn, Norway.

Hardicanute afterwards ascended the English throne, and died in 1041, with the reputation of a prince equally distinguished for virtues and vices. England was now lost to the Danes; but Magnus, the next prince, reigned over Denmark and Norway. Under him and the succeeding princes, a war was almost constantly carried on with the Vandals, to repress their disorder, and punish their attachment to the old pagan religion. They were not, however, yet subdued; and about the year 1147, the Saxons undertook a crusade against them, whom they cut off by thousands, without making a single convert. Conrad also went on a crusade to Palestine, from which he returned in peace.

Nothing remarkable happened in the empire, after the return of Conrad III. from the East, except the death of prince Henry, his eldest son, who had been elected king of the Romans. This event greatly affected the emperor, who died soon after; and his nephew, Frederic, surnamed Barbarossa, duke of Suabia, was raised to the imperial throne by the unanimous voice of the princes and nobles both of Italy and Germany. He was succeeded by Henry VI. whose election was no sooner known, than almost all the princes of Europe sent ambassadors to Mersburg, to congratulate him on his elevation. The king of Denmark went thither in person, for the investiture of his dominions; and Frederic crowned the Danish monarch with his own hand, and received the oath of allegiance from him as a vassal of the empire.

The emperor, after his return to Germany, incorporated the Teutonic knights into a regular order, religious and military, and built a house for them at Coblentz. These Teutonic Knights, and also the Knights Templars, and Knights Hospitallers, were originally monks who settled in Jerusalem when it was first taken by the champions of the Cross. They were established into religious fraternities for the relief of distressed pilgrims, and for the care of the sick and wounded, without any hostile purpose. But the holy city being afterwards in danger, they took up arms, and made a vow to combat the infidels, as they had formerly done to combat their own carnal inclinations. The enthusiastic zeal of the times increased their number; they grew wealthy and honourable; were patronised in Europe by different princes; and became a militia of conquerors.

Henry died at Messina; and, as was supposed, of poison, administered by the empress, who saw the ruin of Naples, her country, hatching in his perfidious and vindictive heart, as will be more particularly related hereafter.

But Henry, amidst all his baseness, possessed many great qualities. He was active, eloquent, brave; his administration was vigorous, and his policy deep. None of the successors of Charlemagne were ever more feared and obeyed, either at home or abroad.

The emperor's son Frederic, having already been declared king of the Romans, became emperor on the death of his father. But as Frederic II. was yet a minor, the administration was committed to his uncle Philip, duke of Suabia, both by the will of Henry, and by an assembly of the German princes. Other princes, however, incensed to see an elective empire become hereditary, held a new diet at Cologne, and chose Otho, duke of Brunswick, son of Henry the Lion. Frederic's title was confirmed in the third assembly at Arnsburg; and his uncle Philip was elected king of the Romans, in order to give greater weight to his administration.

These two elections divided the empire into two powerful factions, and involved all Germany in ruin and desolation. Innocent III. who had succeeded Celestine in the papal chair, threw himself into the scale of Otho, and excommunicated Philip and all his adherents.

At length Philip prevailed; and Otho, obliged to abandon Germany, took refuge in England. Philip, elated with success, got his election confirmed by a second coronation, and proposed an accommodation with the pope, as the means of finally establishing his throne. But before that accommodation could be brought about, he fell a sacrifice to private revenge; being assassinated by the count Palatine of Bavaria, in consequence of a private dispute.

Otho returned to Germany on the death of Philip, married that prince's daughter, and was crowned at Rome by Innocent III. after yielding to the holy see the long disputed inheritance of the countess Matilda, and confirming the rights and privileges of the Italian cities.

But these concessions, as far at least as they regarded the pope, were only a sacrifice to present policy. Otho, therefore, no sooner found himself in a condition to act offensively,

than he resumed his grant; and not only recovered the possessions of the empire, but made hostile incursions into Apulia, ravaging the dominions of young Frederic, king of Naples and Sicily; who was under the protection of the holy see. Hence we may date the ruin of Otho. Innocent excommunicated him; and Frederic, now 15 years of age, was elected emperor, by a diet of the German princes.

Otho, however, on his return to Germany, finding his party still considerable, and not doubting but he should be able to humble his rival, by means of his superior force, entered into an alliance with his uncle, John, king of England, against Philip Augustus, king of France. The unfortunate battle of Bouvines, where the confederates were defeated, as we have seen, completed the fate of Otho. He attempted to retreat into Germany, but was prevented by young Frederic; who had marched into the empire at the head of a powerful army, and was every where received with open arms.

Thus abandoned by all the princes of Germany, and altogether without resource, Otho retired to Brunswick, where he lived four years as a private man, dedicating his time to the duties of religion. He was not deposed, but forgot; and if it is true that, in the excess of his humility, he ordered himself to be thrown down, and trod upon by his kitchen-boys, we may well say with Voltaire, that the kicks of a turnspit can never expiate the faults of a prince.

Frederic II. being now universally acknowledged emperor, was crowned at Aix-la-Chapelle with great magnificence; and in order to preserve the favour of the pope, he added to the other solemnities of his coronation, a vow to go in person to the Holy Land.

The reign of Frederic was chiefly employed in Italian quarrels and expeditions to the East. He at last ended his days in Italy, where fortune, which had hitherto favoured him, seemed now to desert him. He was defeated before Parma, which he had long besieged; and, to complete his misfortune, he soon after learned that his natural son Entius, whom he had made king of Sardinia, was worsted and taken prisoner by the Bolognese.

In this extremity, Frederic retired to his kingdom of Naples, in order to recruit his army; and there died of a fever, in the 55th year of his age. He was a prince of great genius, erudition, and fortitude; and notwithstanding all the troubles he had to encounter, he built towns, founded universities, and gave a kind of new life to learning in Italy.

After the death of Frederic II. the affairs of Germany fell into the utmost confusion, and Italy continued long in the same distracted state in which he left it. The clergy took arms against the laity; the weak were oppressed by the strong; and laws, divine and human, were disregarded. But a particular history of that unhappy period would fill the mind with disgust and horror. We shall therefore only observe, that after the death of Frederic's son, Conrad, who had assumed the imperial dignity, as successor to his father, and the death of his competitor, William of Holland, a variety of candidates appeared for the empire, and several were elected by different factions; among whom was Richard, earl of Cornwall, brother to Henry III. king of England. But no em-

peror was properly acknowledged till the year 1273, when Rodolph, count of Hapsburg, was unanimously raised to the vacant throne.

During the interregnum which preceded the election of Rodolph, Denmark, Holland, and Hungary, entirely freed themselves from the homage they were wont to pay to the empire; and nearly about the same time, several German cities erected a municipal form of government, which still continues. Lubec, Cologne, Brunswick, and Dantzic, united for their mutual defence against the encroachments of the great lords, by a famous association, called the Hanseatic League; and these towns were afterwards joined by 80 others, belonging to different states, which formed a kind of commercial republic.

CHAPTER IV.

GERMANY AND THE NORTH.—*From the accession of Rodolph to the death of Maximilian.*

RODOLPH, count of Hapsburg, a great captain, who had some time exercised the office of grand marshal to Ottocarus, king of Bohemia, and was raised to the imperial dignity on account of his military talents, no sooner found himself in possession of the august throne, than he employed his authority in suppressing the disorders which had prevailed during the interregnum; and he succeeded so well in his endeavours, that peace and security were soon generally re-established in Germany. He destroyed in Thuringia 60 castles, which were the retreats of banditti, and ordered 99 highwaymen to be hanged at one time in the city of Erfurt.

Having thus in some measure settled the interior police of the empire, Rodolph assembled a diet at Mentz, where he granted new privileges to Goslar and other cities, and confirmed those which had been granted by his predecessors. Here also the deliberations of the assembly turned upon the conduct of certain princes, who had protested against the election of the count of Hapsburg. Among these was Ottocarus, king of Bohemia, against whom the diet had other causes of dissatisfaction. He had seized upon the duchy of Austria, after the death of Frederic, the last duke; and the states complained of the oppressions which they suffered under this usurper, from whom they begged to be delivered.

A second diet was summoned on this subject at Augsburg; where Ottocarus, not appearing or doing homage by his ambassadors, was declared a rebel to the empire. His possession of Austria, Stiria, Carniola, and Carinthia, was adjudged illegal; and the emperor was desired to divest him of those territories.

When this sentence was notified to Ottocarus, he arrogantly exclaimed, "To whom should I do homage? I owe Rodolph nothing: he was formerly my servant, and I paid him his wages. My possessions I will maintain with the point of my sword."

In consequence of this resolution, Ottocarus associated himself with several other German princes, and among the rest with the duke of Bavaria. But they were all at last obliged to submit; and the proud Ottocarus himself, not only relinquished the contested territories, but did homage for Bohemia and Moravia.

This homage was performed in the island of Camberg, in the Danube, under a close canopy, in order to save Ottocarus from a public humiliation. He repaired to the place, all covered with gold and jewels. Rodolph, by a superior pride, received him in the most coarse and simple dress; and in the midst of the ceremony, either by accident or design, the curtains of the canopy fell back, and exposed to the eyes of the people, and

the armies that lined the banks of the river, the haughty king on his knees, with his hands joined between those of his conqueror, whom he had so often called his steward, and to whom he now became cup-bearer.

The wife of Ottocarus, a Russian princess, and no less haughty than her husband, was so much hurt by this mortifying circumstance, that she induced him to renounce the treaty he had concluded with Rodolph, and again have recourse to arms for the recovery of Austria. The emperor immediately marched against him; and a battle ensued, in which Ottocarus was slain.

Rodolph now discovered himself to be no less a politician than a warrior. He gave the government of Austria and its appendages to his eldest son, count Albert, whom he afterwards, in a diet at Augsburg, publicly invested with that duchy, which was incorporated with the college of the princes. Hence the rise of the house of Austria. And he at the same time invested Rodolph, another of his sons, with the county of Suabia, which belonged to him in right of his wife. He also wisely resolved to adhere to the articles of the treaty with Ottocarus; and accordingly put his infant son, Winecesiaus under the tutelage of the marquis of Brandenburg

But although Rodolph's authority was now fully established in Germany, he was so far from being master of Italy, that he did not receive the imperial crown from Gregory X. till he had ceded to the holy see the lands of the countess Matilda.

Rodolph spent the latter part of his reign in establishing the grandeur of his family in Austria. He granted privileges to the clergy; bestowed new dignities upon the noblemen, diminished the taxes; built and repaired public edifices; and behaved with so much generosity and moderation, as won the hearts of all men. But notwithstanding his popularity, he could not procure his son Albert, duke of Austria, to be elected king of the Romans; a disappointment, which, together with the death of his son Rodolph, so much chagrined him, that he died soon after. He was a prince of great valour, sagacity, and probity, and raised the empire, from a state of misery and confusion, to the enjoyment of peace, policy, and riches.

After an interregnum of nine months, which was productive of many disorders, the German princes raised to the imperial throne Adolphus of Nassau, on the same principle which had made them choose his predecessor. He seemed capable of maintaining the glory of the empire at the head of its armies, without being able to enslave it.

The reign of this prince was one continued scene of troubles, and at last terminated in his deposition. His necessities had made him guilty of several acts of injustice; which Albert, duke of Austria, dissatisfied at not succeeding to the imperial throne, took care to represent in the worst light. A confederacy was formed against Adolphus; and he was deposed by the archbishop of Mentz, in the name of the princes of the empire.

"Six years ago" said the archbishop, "the empire being vacant, we canonically elected Adolphus, count of Nassau, king of the Romans. knowing at that time no person more worthy of the dignity. At first he conducted himself wisely, following the counsel of the most prudent electors and princes of his court. But he began by de-

degrees to despise their advice, and listen to the counsels of young persons, without either sense or experience; then he found himself destitute of means and friends to assist him sincerely in bearing the burden of government. The electors, perceiving his indigence, and swayed by many other motives, have demanded the pope's consent to depose him, and choose another emperor. We are told that our envoys have obtained the consent of his holiness; though those of Adolphus affirm the contrary; but we, having no regard to any authority, except that which is vested in ourselves, and finding Adolphus incapable of governing the empire, do depose him from the imperial dignity, and elect Albert, duke of Austria, king of the Romans."

Adolphus, apprised of this election, raised the siege of Ruffach, in Alsace, and marched towards Spire, where he encamped. He was reinforced by the count Palitine, Rodolph, Otho, duke of Bavaria, and the cities of Spire and Worms, which had never deserted his cause. Albert advanced towards him, in order to dispute the imperial crown by arms. They engaged between Gelnsheim and the cloister of Rosendal, and the battle was maintained with much obstinacy on both sides. In the heat of action, Adolphus, singling out his rival, attacked him hand to hand, haughtily exclaiming, "Here you shall resign to me the empire and your life!" "Both," replied Albert, "are in the hands of God;" and immediately struck his competitor with such violence in his face, that he fell down from his horse, and was instantly slain.

During the reign of Adolphus, and also his predecessor, Rodolph, the Jews were persecuted in the empire with great cruelty, on a supposition that they had slain several Christian children, and committed other crimes, which excited the hatred of the public. They were accused of having stolen a consecrated host; and the credulous people, without examining into the matter, were so much incensed at this pretended sacrilege, that the inhabitants of Nuremberg, Rottemberg, Amberg, and several other towns of Franconia and Bavaria, seized all the unhappy Israelites that fell in their way, committed them to the flames, and drove the rest to such despair, that numbers chose rather to destroy themselves and families, than run the hazard of falling into the hands of the merciless Christians. Nor was this unhappy people treated with more indulgence in Holland and Friesland, their present asylum, at that time provinces of the empire.

Though Albert had been elected king of the Romans before his victory over Adolphus, and consequently became emperor on the death of that prince, he chose to have his title confirmed by a new diet; which was accordingly assembled for that purpose at Frankfort, the elector of Triers and the Palatine not having formerly given their votes, and he was solemnly crowned at Aix-la-Chapelle. The concourse of people on that occasion was so great, that the duke of Saxony, the emperor's brother, and several other persons were squeezed to death in the crowd.

The first years of Albert's reign were disquieted by a quarrel with the pope and the ecclesiastical electors. Boniface VIII. the last pontiff who pretended to the right to dispose of crowns (unless in the case of excommunicated princes), and who carried the pretensions of the apostolic see as high as any of his predecessors, took part with the three German archbishops, who had refused to answer the emperor's summons.

They were at length, however, obliged to submit; and Boniface confirmed the election of Albert, when he wanted to make him the instrument of his vengeance against Philip, king of France.

The revolt of the republic of Switzerland, the most important event of this reign, will be recorded in a more advanced part of this work. Albert was ready to hazard his forces in the invasion of these states, when he fell a sacrifice to his rapacity and injustice. His own nephew, John, who could not obtain from him the enjoyment of his patrimony, resolved to make sure of his revenge. This injured youth, confederating with three others, stabbed the emperor in presence of his court and army, on the banks of the river Prus, in the neighbourhood of Switzerland.

The imperial throne continued vacant for seven months after the assassination of Albert. At length the electors assembled at Frankfort, and chose Henry, count of Luxemburg; who was crowned, without opposition, at Aix-la-Chapelle.

A diet was soon after held at Spire, where sentence of death was pronounced against prince John, for the murder of his uncle, the late emperor; whose sons, at the same time, demanded the investiture of Austria, and the other hereditary dominions of their father, which Henry intended to seize. They obtained their demand, on making them sensible, that as the house of Austria had already sent two emperors out of the world, it might yet prove fatal to a third, if he did not desist from his unjust pretensions.

The greater part of the reign of Henry VII. was occupied in Italian affairs. During his last years, the knights of the Teutonic order aggrandised themselves, by making war upon the pagans of the north. They possessed themselves of Samogitia, after butchering all the inhabitants who refused to embrace Christianity. They took Dantzic, and purchased Pomerella of a marquis of Brandenburg, to whom it then belonged.

The death of Henry was followed by an interregnum of 14 months, which were employed by the intrigues of Louis of Bavaria and Frederic the Handsome, duke of Austria. Louis was elected by the greater number of the princes; but Frederic being chosen and supported by a faction, disputed the empire with him. A furious civil war, which long desolated both Italy and Germany, was the consequence of this opposition. At last, the two competitors met near Muldorf, and agreed to decide their important dispute by 30 champions, 15 against 15. The champions accordingly engaged in presence of both armies, and fought with such fury, that in a short time not one of them was left alive. A general action followed, in which the Austrians were worsted. But this victory was not decisive.

Frederic soon repaired his loss, and even ravaged Bavaria. The Bavarians assembled a powerful army in order to oppose his rival, and the battle of Vechivis, in which the duke of Austria was taken prisoner, fixed the imperial crown on the head of Louis V.

Louis V. had no sooner humbled the duke of Austria, than he had the pope to encounter. John XXII. declared the election of Louis void: he maintained, that it was the right of the sovereign pontiff to examine and confirm the election of emperors,

that the government, during the vacancy, belonged to him: and he commanded the emperor, by virtue of his apostolic power, to lay aside the imperial ensigns, until he should receive permission from the holy see to reassume them.

This contest, which was carried on by a succession of popes, was productive of an event of lasting utility. The princes of the empire, ecclesiastical as well as secular, assembled at Frankfort, and established that famous constitution, by which it was irrevocably fixed, "That the plurality of the suffragans confers the empire, without the consent of the holy see; that the pope has no superiority over the emperor of Germany, nor any right to approve or reject his elections; and that to maintain the contrary is high treason." They also refuted the absurd claims of the popes to the government of the empire during a vacancy; and declared, "That this right appertains, by antient custom, to the count palatine of the Rhine."

At length, Clement VI. a native of France, having issued a bull for the election of a new emperor, Charles of Luxemburg, margrave of Moravia, son and heir of John, king of Bohemia, having made the necessary concessions to his holiness, was elected king of the Romans by a faction. Louis, however, maintained his authority to his death, which happened soon after the election of his rival; when Charles, rather by his money than his valour, got possession of the imperial throne.

Charles IV. was much degraded in the esteem of all wise men by the concessions he made to the pope during his journey into Italy; but appeared in a more respectable light after his return to Germany.

The number of Electorates had been fixed, since the death of Henry VII. more by custom than by laws, but not the number of electors. The duke of Bavaria presumed he had a right to elect as well as the count Palatine, the elder branch of their family; and the younger branches of the house of Saxony believed themselves intitled to vote as well as the elder. The emperor, therefore, resolved to settle these points, that due subordination might take place, and future elections be conducted without confusion or disorder. For this purpose he ordered a diet to be assembled at Nuremburg, where the famous constitution, called the Golden Bull, was established, in the presence, and with the consent of all the princes, bishops, abbots, and the deputies of the imperial cities.

The style of that celebrated charter partakes strongly of the spirit of the times. It begins by an apostrophe to Satan, anger, pride, luxury; and it says, that it is necessary the number of electors should be seven, in order to oppose the seven mortal sins. It speaks of the fall of the angels, of a heavenly paradise, of Pompey and Cæsar; and it asserts, that the government of Germany is founded on the three theological virtues, as on the Trinity.

The seven electors were the archbishops of Mentz, Cologne, and Treves; the king of Bohemia, the count palatine, the duke of Saxony, and the margrave of Brandenburg.

The imperial dignity, which of itself then conferred little real power, never shewed more of the lustre that dazzles the eyes of the people, than on the publication of this famous edict. The three ecclesiastical directors, all three archchancellors, appeared

in the procession with the seals of the empire: the archbishop of Mentz carried that of Germany; the archbishop of Cologne, that of Italy; and the archbishop of Treves, that of Gaul. The duke of Luxemburgh and Brabant, who represented the king of Bohemia, as great cup-bearer, presented the emperor with his drink, poured from a golden flagon into a cup of the same metal; the duke of Saxony, as grand marshal, appeared with a silver measure filled with oats. The elector of Brandenburgh presented the emperor and empress with water to wash in a golden ewer, placed in a golden bason, and the count Palatine served up the victuals in golden dishes, in the presence of all the great officers of the empire.

The latter part of the reign of Charles IV. was distinguished by no remarkable transaction, except the sale of the imperial jurisdictions of Italy. Charles, who was reputed a good prince, but a weak emperor, was succeeded in all his possessions and dignities, by his son Winceslaus.

Winceslaus, who was but 17 years of age, began his reign by a fruitless attempt to heal what was called the great schism of the west. Though perhaps equally religious with either of the contending pontiffs, he should seem from his private life to be ill qualified to decide theological disputes: he was immersed in debauchery, and seemed industrious in acquiring the hatred of his subjects, by the extraordinary taxes he imposed, and the cruelties which he exercised, upon people of all ranks.

On account of these irregularities, and of selling the rights of the empire, both in Italy and Germany, the electors assembled at the castle of Laurenstein on the Rhine, deposed Winceslaus, and raised to the imperial dignity Frederic, duke of Brunswick and Lunenburg; but he being basely murdered by count Waldeck, before his coronation, they elected in his stead Rupert, or Robert, count palatine of the Rhine.

Soon after the accession of Robert, Bohemia was involved in new disorders, in consequence of the preaching of John Huss, professor of divinity in the university of Prague, who had embraced the opinions of Wickliffe, and was excommunicated by the pope.

The publication of this sentence was followed by troubles and commotions. Winceslaus shut himself up in the fortress of Visigrade, and Huss retired to Hussinet, the place of his nativity; where he appealed from the judgment of the pope to the Holy Trinity, and wrote to the cardinals, offering to give an account of his faith, even at the hazard of life, before the university of Prague, and in the presence of those who attended his lectures and sermons.

The Roman church still continued torn by a schism, which the emperor Robert in vain attempted to heal He was succeeded in the empire, after a disputed election, by Sigismund, brother to the deposed Winceslaus, and king of Hungary; a prince of experience and abilities, and whose first care was to compose the distractions of the church.

For this purpose he convoked a general council at Constance, with the concurrence of John XXIII. one of the three pretenders to the papal dignity.

At this council, where Sigismund appeared in all his glory, were present a prodi-

gious number of cardinals, prelates, doctors; more than 100 sovereign princes, 180 counts, 200 barons, and 27 ambassadors from the several European courts, who all seemed to vie with each other in luxury and magnificence. There were also 500 players on instruments, called in those days minstrels; and 718 courtezans, who were protected by the magistrates.

After prevailing on two of the papal rivals to desist from their pretensions, the council next proceeded to examine the affair of John Huss. He had converted to his opinions great numbers of people of all ranks. Among others, his doctrine was embraced by Jerome of Prague, a man of learning, whom he had engaged as his colleague, who propagated the reformed religion with great warmth. They had been summoned to appear before the court of Rome, but refused to obey the citation. They consented, however, to attend the council of Constance, in order to justify the doctrine they professed; and Huss, being provided with a safe conduct from the emperor, boldly attempted to defend the articles of his faith before the fathers of the council. But as it is easier to make martyrs than to answer arguments, they were inclined to condemn him unheard, when the emperor desired them to listen to what Huss should say in his own defence. He was accordingly questioned in the presence of Sigismund, and accused of heresy in 39 different articles. Part of these he denied, and part he offered to defend. But his voice was drowned by the noise purposely made by the cardinals; and on his refusing to abjure all the 39 articles, he was immediately declared a sower of sedition, a hardened heretic, a disciple and defender of Wickliffe. As such, he was degraded by four bishops, stripped of his sacerdotal habit, and clothed in a lay dress His hair was cut in the form of a cross, upon his head was put a paper mitre, painted with the representation of three devils; and he was delivered over to the secular judge, who condemned him and his writings to the flames, and fixed the day of his execution. He died with great constancy.

After the execution of John Huss, the emperor went into Spain, to procure the resignation of Peter de Luna, the third pretended pontiff. During his absence, the trial of Jerome of Prague engaged the attention of the council. This man had repaired to Constance with the design to assist John Huss in making his defence; but perceiving he had nothing to hope from the clemency of the fathers, he resolved to retire, with all expedition, into Bohemia. Being apprehended, however, on the road, he was loaded with chains, and brought back to Constance; where he at first abjured the opinions of Wickliff and Huss, but soon after retracted his recantation, was condemned to the flames as a wicked apostate, and suffered with great fortitude.

Poggio, the Florentine, secretary to pope John, and one of the first restorers of letters, who was present on this occasion, says, he never heard any thing that approached so nearly to the eloquence of the antient Greeks and Romans, as the speech which Jerome made to the judges. "He spoke," exclaims Poggio, "like Socrates; and walked to the stake with as much cheerfulness as that great philosopher drank the cup of hemlock."

These executions were far from answering the end for which they were designed. The

disputes about religion in Bohemia raged with greater violence than ever. The Hussites in Prague were so much offended at being prohibited the cup in the Lord's Supper, that they raised a furious tumult, forced the town-house, and murdered the magistrates, who were concerned in publishing the order.

The news of this massacre filled the court of Winceslaus with the utmost consternation, and made so strong an impression on that pusillanimous prince, that he was seized with an apoplexy, of which he died in a few days.

He was succeeded in the kingdom of Bohemia by his brother Sigismund, already emperor, and king of Hungary; yet this powerful prince was several times defeated by Ziska, the captain of the Hussites, who revenged the death of that martyr by the most terrible outrages.

As our limits will not permit us to give a particular account of this war, we shall only observe that Ziska continued master of Bohemia till his death, when he ordered a drum to be made of his skin, which was long the symbol of victory. He was succeeded in the command by Procopius, surnamed the Shaven, because he had been a priest, and who supported his party with no less valour than his predecessor. He boldly defended their cause in the council of Basil; and although he was unsuccessful in that negotiation, and also in a battle with the catholics, in which he was mortally wounded, yet the Hussites, even in this extremity, obtained a general amnesty, the confirmation of their privileges, and the right of using the cup in the communion, a concession which to them was a kind of triumph.

After this pacification, Sigismund enlisted the Hussites into his army, and led them against the Turks, who had made an irruption into Hungary, and were defeated with great slaughter by these hardy veterans. But although Sigismund had been so fortunate as to regain the affection of the Bohemians, he lost it anew, by attempting to tyrannise over their consciences, and only death saved him from a second revolt.

Sigismund was succeeded in the kingdoms of Hungary and Bohemia, and also in the empire, by his son-in-law, Albert II. duke of Austria. The only enterprise of moment, in which this prince was engaged during his short reign, was an expedition against the Turks in Bulgaria, where he was seized with a violent dysentery, before any action took place, and died at the village of Long, in his return to Vienna. Albert was succeeded in the imperial throne by his cousin, Frederic of Austria, the third emperor of that name. The kingdoms of Hungary and Bohemia were settled on Ladislaus, Albert's infant son, who was committed to the guardianship of Frederic.

His first care was to heal a schism in the church, after which, the affairs of Germany being tolerably settled, he entered Italy, and proceeded towards Rome. Before he entered St. Peter's patrimony, he took an oath neither to injure the pope, nor suffer him to receive any injury from any to whom he should commit the administration of Italy.

He was at Rome crowned king of Lombardy; and three days after this ceremony, he was married to Eleanora, sister to the king of Portugal, and together with her received the imperial crown. The emperor and the pope next ratified the concordata of the

German nation, touching the collation to prelacies and other benefices, which had some years before been agreed to by cardinal Carvajal, Nicholas's legate at the imperial court.

Having thus transacted matters at Rome, Frederic set out on his return to Germany; and in his passage through Ferrara, was waited upon by Borsi, marquis of Este, a prince of extraordinary merit, whom he created duke of Modena and Reggio. On his arrival in Austria, he found himself involved in a number of difficulties, out of which he was never able fully to extricate himself. The Hungarians had often entreated Frederic to send home their king Ladislaus, whom he still detained at the imperial court, under pretence of being guardian to that young prince; and they had, by the most earnest and repeated instances, besought him to restore their crown and regalia, which were in his custody. But he found means, under various pretences, to postpone his compliance with these demands. The Austrians, joined by a number of Bohemians, and encouraged by several princes of the empire, also sent a deputation to expostulate with Frederic on the same subject; and as he lent a deaf ear to their request likewise, and amused them with fresh evasions, they had recourse to arms, and compelled him to sign an accommodation. It was agreed, that Ladislaus, being yet of too tender years to take upon himself the government of his kingdoms, should be put under the tuition of Ulric, count Celley, his uncle by his mother's side, and that the dispute touching the wardship of the emperor, should be determined at Vienna. Count Celley's ambition was elated by the power which he derived from being tutor to Ladislaus. He attempted to make himself absolute master in Austria; he secured the principal fortresses, by giving the command of them to his creatures; and he gradually removed Elsinger, a Bohemian gentleman, who had headed the insurrection, and the Austrian nobility, from all offices of importance. His friends and favourites only were trusted. The people were incensed at such proceedings; and Elsinger, profiting by their discontent, roused their resentment to such a degree, that the count was obliged to retire into Hungary, after having delivered up the person of Ladislaus, who consented to take the oath imposed upon him by the Bohemians, and was crowned with great solemnity at Prague.

During these contests, the city of Constantinople was taken by the Turks, after they had subdued the rest of Greece; and by this blow, the Roman empire in the east was utterly annihilated, as shall be related more at length in its proper place. Here it is only necessary to observe, that the progress of the Mahometans alarmed all the princes of Christendom; and made them think of uniting, though too late, in order to oppose the common enemy. A diet was convoked at Ratisbon on this subject, and the members unanimously agreed, That there was a necessity for taking some speedy measures to stop the progress of the infidels. But what these measures should be, was a consideration referred to another diet, assembled at Frankfort; where, although there was a vast concourse of princes, and great appearance of zeal, very little was done for the common cause. Other diets were afterwards held for the same purpose, but with no better success; a backwardness which was chiefly owing to the timid and slothful disposition of the emperor, who would never heartily embark in the undertaking. The

German princes, however, at the solicitation of Carvajal, the pope's legate, sent a body of troops to the assistance of John Hunniades, a famous Hungarian general, who had long gallantly defended his country against the Turks, and gained several advantages over them. Hunniades, thus reinforced, marched to the relief of Belgrade, which was besieged by Mahomet II. the conqueror of Constantinople, and the terror of Christendom; and compelled the sultan, after an obstinate engagement, to raise the siege, and retreat, with the loss of 4000 men left dead on the spot. But the death of Hunniades, which happened a few days after the battle, prevented the Christian army from making any progress against the infidels. The fruits of their victory, and their future projects, perished with their illustrious leader.

In the mean time, Ladislaus, king of Hungary and Bohemia, died, and various competitors arose for those crowns, as well as for the dominions of Upper Austria, which belonged to that prince. Among these was the emperor, Frederic III. who reaped nothing but damage and disgrace from a civil war, which desolated Germany for many years, but which was productive of no event that merits attention. His son Maximilian was more fortunate, and better deserved success. This young prince, who was as active and enterprising as his father was indolent and timid, married, at 20 years of age, the only daughter of Charles the Bold, duke of Burgundy. She brought him Flanders, Franche-Compte, and all the Low Countries. Louis XI. who disputed some of these territories, and who, on the death of the duke, having seized Burgundy, Picardy, Ponthieu, and Artois, as fiefs of France, which could not be possessed by a woman, was defeated by Maximilian at Guinegaste; and Charles VIII. who renewed the same claims, was obliged to conclude a disadvantageous peace.

Frederic died in the 79th year of his age, and the 54th of his reign. No emperor had ever reigned longer, and none less gloriously.

The reign of Maximilian, already elected king of the Romans, introduces a more interesting period than that over which we have now travelled, and opens a vista into some of the grandest scenes of history.

But as most of the events of this reign have greater reference to the south than the north of Europe, we shall here barely notice them in chronological order.

Maximilian embraced the system of the balance of power, which then began to be formed; and assisted the Italian states in opposing the return of Charles VIII. from his Neapolitan expedition.

He carried on a war with the Swiss Cantons, who had shaken off all dependance on the Austrian government; but he did not obtain any important advantage.

The same year the French monarch terminated amicably some disputes which he had with Philip the Handsome, the emperor's son, and father to Charles V.; and this Philip did homage to France for the counties of Flanders and Artois.

Louis XII. engaged by the treaty of Blois to pay the emperor Maximilian a large sum for the investiture of the duchy of Milan.

About this time, Isabella, queen of Castile, died; and Philip the Handsome went to take possession of that kingdom, as heir to his mother-in-law. He also died in a short

time; and, to the astonishment of all Europe, left the king of France governor to his son Charles.

From 1508 to 1513, Maximilian acted as an ally of France against the Venetians; but in 1513 he became an adversary to the French, and in 1516 made peace both with France and Venice. This peace was preceded by the death of Ferdinand the Catholic, and the succession of his grandson Charles to his extensive dominions.

While Charles was taking possession of the throne of Spain, in consequence of the death of one grandfather, another was labouring to procure for him the imperial crown. With this view, Maximilian assembled a diet at Augsburg, where he strove to gain the favour of the electors, by many acts of beneficence, in order to engage them to choose that young prince as his successor. But Maximilian himself having never been crowned by the pope, a ceremony deemed essential in that age, he was considered only as king of the Romans, or emperor elect; and no example occurring in history of any person being chosen successor to a king of the Romans, the Germans, ever tenacious of their forms, obstinately refused to confer upon Charles a dignity for which their constitution knew no name.

But the diet at Augsburg had other business. The abuse of the sale of indulgences in Germany, where they was publicly retailed at ale-houses, and where the produce of particular districts were farmed out in the manner of a toll or custom, awakened the indignation of Martin Luther, an Augustine friar, and professor of theology in the university of Wittenberg. Luther preached and wrote against indulgences, and his writings were read with avidity, and his discourses heard with admiration. From abuses he proceeded to usurpations; from usurpations to errors; and from one error to another, till the whole fabric of the Romish church began to totter.

Pope Leo X. in the mean time, alarmed at the progress of this intrepid reformer, had summoned him to answer for his doctrines at Rome. But that citation was remitted, at the intercession of Frederic, surnamed the Wise, elector of Saxony, who had hitherto protected Luther; and his cause was ordered to be tried in Germany, by cardinal Cajetan, a Dominican, eminent for scholastic learning, and the pope's legate at the imperial court. For this end, among others, he attended the diet at Augsburg; and thither Luther repaired without hesitation, after having obtained the emperor's safe conduct, though he had good reason to decline a judge chosen from among his avowed adversaries.

The cardinal received him with decent respect, and endeavoured, at first, to gain him by gentle treatment; but finding him firm in his principles, and thinking it beneath the dignity of his station to enter into any formal dispute, he required him, by virtue of the apostolic powers with which he was vested, to retract his errors (without shewing they were such), and abstain, for the future, from the publication of new and dangerous opinions. Luther was much mortified at this arbitrary mode of proceeding. His native intrepidity of mind did not, however, forsake him; he boldly replied, that he could not, with a safe conscience, renounce opinions which he believed to be true; but offered to submit the whole controversy to the judgment of the learned, naming certain uni-

versities. This offer was rejected by Cajetan, who still insisted upon a simple recantation; and Luther, by the advice of his friends, after appealing to a general council, secretly withdrew from Augsburg, and returned to his own country.

The diet of Augsburg was soon followed by the death of the emperor Maximilian. During his reign, Germany was divided into circles; and the imperial chamber and aulic council were instituted; order was given to government, and some degree of vigour restored to the imperial authority.

We shall close this chapter with a brief sketch of the three northern kingdoms.

Denmark increased in prosperity during the reigns of Valdemar I. Canute VI. and Valdemar II. till at length it arrived at an amazing pitch of power and riches. There were kept for constant service 1400 great and small ships for the king's use, each, at a medium, carrying 121 soldiers, making the total of standing forces, besides garrisons, amount to 169,400 fighting men.

Such was the prodigious wealth and potency of this kingdom, about the year 1220, if we may credit contemporary writers; but from this time to the reign of Valdemar III. we meet with nothing but civil dissentions; the expulsion and the number of princes. Valdemar III. resumed most of the grants, which had alienated a large part of the royal domains, and enabled the nobility to excite innumerable disturbances: and by marrying his daughter Margaret to the king of Norway, laid the foundation of the celebrated union which afterward distinguished the reign of that princess.

Norway was converted to the Christian religion in the beginning of the 11th century, and from that time became better known than before to the southern parts of Europe. Their king Olaus relinquished the religion of his fathers, in 994. Barnard, an Englishman, had the honour of baptizing him, when Olaus happened to touch at one of the Scilly islands. He plundered with great spirit during several years; and in 1006, received the crown of martyrdom from his pagan subjects.

But religious zeal soon proved subservient to purposes of commercial aggrandizement. The Hans towns poured in their missionaries, and reaped a temporal harvest. By the year 1204, the merchants obtained from the wise prince Suer, every encouragement to commerce, who by that means introduced wealth and civilization into his barren kingdom. England by every method cherished the advantages resulting from an intercourse with Norway, and Bergen was the emporium. Henry III. in 12.7, entered into a league with its monarch, Haquin, by which both princes stipulated for free access for their subjects into their respective kingdoms, free trade and security to their persons. In 1269, Henry entered into another treaty with Magnus; in which it was agreed, that no goods should be exported from either kingdom, unless they were paid for; and there was besides a humane regulation on both sides, for the security of the persons and effects of the subjects who should suffer shipwreck on their several coasts.

From the history of Sweden, which ascends to an high antiquity, but must be regarded as uncertain before their conversion in the 10th century, it appears that Sweden and Denmark had been at intervals under the same monarch. The regular and settled union of the three northern kingdoms did not, however, take place, till the time of Margaret of

Denmark, the Semiramis of the north. That able and ambitious princess having, by means of hereditary pretensions, the influence of the clergy, her profound policy, and the success of her arms, obtained possession of the three crowns, procured that celebrated law to be enacted, which is called the union of Calmar.

It consisted of three principal articles, which were established for the security of each nation. The first imported, that the three kingdoms, which were in a manner elective, should, henceforward, have but one and the same king, who should be chosen successively by each of the kingdoms, and then approved by a general assembly of the whole. The second article consisted in the obligation upon the sovereign to divide his time equally in the three kingdoms, and to spend in each the revenues arising to him from each crown, without being able to apply the savings but for the good of that particular kingdom. The third and most important was, that each kingdom should retain its own laws, customs, senate, and privileges of every kind; and that the garrisons of each kingdom should be maintained at its own expence, and defended by its own forces; and that the subjects of one kingdom should not be raised to posts of profit and power in the other, but should be reputed foreigners, except in their own native country.

This union contained abundantly the seeds of discord, which we shall find in the next chapter breaking out into open war.

CHAPTER V.

GERMANY AND THE NORTH——*From the accession of Charles V. to the treaty of Westphalia.*

THOUGH Maximilian could not prevail upon the German electors to choose his grandson of Spain king of the Romans, he had disposed their minds in favour of that prince; and other circumstances, on the death of the emperor, conspired to the exaltation of Charles. The imperial crown had so long continued in the Austrian line, that it began to be considered as hereditary in that family; and Germany, torn by religious disputes, stood in need of a powerful emperor, not only to preserve its own internal tranquillity, but also to protect it against the victorious arms of the Turks, who, under Selim I. threatened the liberties of Europe. This fierce and rapid conqueror had already subdued the Mamalukes, a barbarous militia that had dismembered the empire of the Arabs, and made themselves masters of Egypt and Syria. The power of Charles appeared necessary to oppose that of Selim. The extensive dominions of the house of Austria, which gave him an interest in the preservation of Germany; the rich sovereignty of the Netherlands and Franche-Compte; the entire possession of the great and warlike kingdom of Spain, together with that of Naples and Sicily, all united to hold him up to the first dignity among Christian princes; and the New World seemed only to be called into existence, that its treasures might enable him to defend Christendom against the infidels. Such was the language of his partizans.

Francis I. however, no sooner received intelligence of the death of Maximilian, than he declared himself a candidate for the empire; and with no less confidence of success than Charles. He trusted to his superior years and experience, with his great reputation in arms, acquired by the victory at Marignan, and the conquest of Milan. And it was further urged in his favour, that the impetuosity of the French cavalry, added to the firmness of the German infantry, would prove irresistible; and not only be sufficient under a warlike emperor, to set limits to the ambition of Selim, but to break entirely the Ottoman power, and prevent it from ever becoming dangerous again to Germany.

Both claims were plausible. The dominions of Francis were less extensive, but more united than those of Charles. His subjects were numerous, active, brave, lovers of glory, and lovers of their king. These were strong arguments in favour of his power, so necessary at this juncture; but he had no natural interest in the Germanic body; and the electors, hearing so much of military force on each side, became more alarmed for their own privileges than the common safety. They determined to reject both candidates, and offered the imperial crown to Frederic, surnamed the Wise, duke of Saxony. But he, undazzled by the splendour of an object courted with so much eager-

ness by two mighty monarchs, rejected it, with a magnanimity no less singular than great.

"In times of tranquillity," said Frederic, "we wish for an emperor who has no power to invade our liberties; times of danger demand one who is able to secure our safety. The Turkish armies, led by a warlike and victorious monarch, are now assembling; they are ready to pour in upon Germany with a violence unknown in former ages. New conjunctures call for new expedients. The imperial sceptre must be committed to some hand more powerful than mine, or that of any other German prince. We possess neither dominions, nor revenues, nor authority, which enable us to encounter such a formidable enemy. Recourse must be had, in this exigency, to one of the rival monarchs. Each of them can bring into the field forces sufficient for our defence. But as the king of Spain is of German extraction, as he is a member and prince of the empire, by the territories which descend to him from his grandfather, and as his dominions stretch along that frontier which lies most exposed to the enemy, his claim, in my opinion, is preferable to that of a stranger to our language, to our blood, and to our country." Charles was elected in consequence of this speech.

The two candidates had hitherto conducted their rivalship with emulation, but without enmity. They had even softened their competition by many expressions of friendship and regard. Francis in particular declared, with his usual vivacity, that his brother Charles and he were fairly and openly suitors to the same mistress: "The most assiduous and fortunate," added he, "will win her; and the other must rest contented." But although a generous and high-minded prince, while animated by the hope of success, might be capable of forming such philosophic resolutions, it soon appeared that he had promised a moderation too refined for humanity, and which he was little able to practise.

The preference was no sooner given to his rival, than Francis discovered all the passions natural to disappointed ambition. He could not suppress his chagrin and indignation, at being baulked in his favourite purpose, and rejected in the face of all Europe, for a youth yet unknown to fame. The spirit of Charles resented such contempt; and from this jealousy, as much as from opposition of interests, arose that emulation between those two great monarchs, which involved them in almost perpetual hostilities, and kept their whole age in agitation.

When princes or private persons are resolved to quarrel, it is easy to find a brand of discord. Charles and Francis had interfering claims in Italy, and besides these various sources of competition and contention, the latter thought himself bound in honour to restore the king of Navarre to his dominions, unjustly seized by the crown of Spain.

Henry VIII. of England was sought by both parties, but was at length drawn over to the interest of Charles.

This important point being secured, Charles repaired to Aix-la-Chapelle, where he was solemnly invested with the crown and sceptre of Charlemagne, in presence of a more splendid and numerous assembly than had appeared on any former inaugura-

tion. About the same time, Solyman II. surnamed the Magnificent, one of the most accomplished, enterprising, and warlike of the Turkish princes, and a constant and formidable rival of the German emperor, ascended the Ottoman throne, in consequence of the death of Selim.

The first act of Charles's administration was the appointing a diet to be held at Worms, in order to concert with the princes of the empire proper measures for checking the progress of "those new and dangerous opinions, which threatened to disturb the peace of Germany, and to overturn the religion of their ancestors." The opinions propagated by Luther and his followers were here meant. That bold innovator, after the diet at Augsburg, and the death of Maximilian, had freely promulgated his opinions, under the protection of the elector of Saxony, to whom the vicariate of that part of Germany, which is governed by the Saxon laws, was committed during the interregnum that preceded the election of Charles V. And these opinions were suffered to take root in different places, and to grow up to some degree of strength and firmness. But Leo X. though little skilled in such controversies, came at last to be alarmed at Luther's progress, and convinced that all hopes of reclaiming him by forbearance were in vain, issued a bull of excommunication against him. His books were ordered to be burnt, and he himself was delivered over to Satan, as an obstinate heretic, if he did not, within 60 days, publicly recant his errors.

This sentence neither disconcerted nor intimidated Luther. After renewing his appeal to a general council, he published remarks upon the bull of excommunication, and boldly declared the pope to be the Man of Sin, or Antichrist, whose appearance is foretold in the Revelation of St. John; declaimed against the tyranny and usurpations of the court of Rome with greater vehemence than ever, exhorted all Christian princes to shake off such an ignominious yoke, and boasted of his own happiness in being marked out as an object of ecclesiastical indignation, because he had ventured to assert the rights of religion, and the mental liberty of mankind. Nor did he confine his contempt of the papal power to words alone. He assembled all the professors and students of the university of Wittenburg, and with great pomp, and before a vast multitude of spectators, cast the volumes of the cannon law, together with the bull of excommunication, into the flames; and his example was imitated in several other cities.

While the credit and authority of the Roman pontiff were thus furiously shaken in Germany, an attack no less violent, and occasioned by the same causes, was made upon them in Switzerland. The Franciscans being entrusted with the sale of indulgences in that country, executed their commission with the same unblushing rapaciousness which had rendered the Dominicans so odious in Saxony.

They proceeded, however, with uninterrupted success, till they arrived at Zurich; where they received a mortal blow from Zuinglius, canon of that place, a man of extensive learning, uncommon sagacity, and heroic intrepidity of spirit. Animated with a republican boldness, and free from those restraints which subjection to the will of a prince, and perhaps a remnant of original prejudice, imposed upon the German reformer, he advanced with more daring and rapid steps to overturn the whole fabric of

the established religion, and the pope's supremacy was soon denied in the greater part of Switzerland.

Such was the state of the reformation, when Charles V. arrived in Germany. No secular prince had yet embraced the new opinions; no change in the established forms of worship had been introduced, nor any encroachments made upon the possessions or jurisdiction of the clergy: a deep impression, however, was made upon the minds of the people; their reverence for antient institutions and doctrines was shaken; and the materials were already scattered, which produced the conflagration that afterwards spread over all Europe.

Charles saw the flames gathering; and as he found it necessary to secure the friendship of Leo X. he cited Luther to appear before the diet at Worms. Luther did not hesitate a moment about yielding obedience: he accompanied the herald who brought the emperor's letter and safe-conduct. "I am lawfully called to appear in that city," said he to some of his friends, who were anxious for his safety; "and thither I will go, in the name of the Lord, though as many devils as tiles upon the houses were there assembled against me."

Had vanity and the love of applause, from which no human heart is free, been the sole principles by which Luther was influenced, his reception at Worms was such as he might have reckoned a full reward for all his labours. Vast crowds assembled to see him whenever he walked abroad; and his apartments were daily filled with princes and personages of the highest rank, who treated him with all the respect that is due to superior merit, but which is more particularly commanded by those who possess the power of directing the understanding and sentiments of others. Rank or birth can receive no homage so flattering, for they can receive none so sincere, or which has so immediate a reference to those qualities, which men call their own. Luther was not, however, intoxicated; he behaved before the diet with equal decency and firmness. He readily acknowledged an excess of vehemence and acrimony in his controversal writings: but he refused to retract his opinions, till convinced of their falsehood, or consent to their being tried by any other standard than the scripture. Neither threats nor intreaties could prevail on him to depart from this resolution. Some of the fathers therefore proposed to imitate the example of the council of Constance, in its proceedings relative to John Huss; to commit to the flames the author of this pestilent heresy, now in their power, and deliver the church at once from so dangerous an enemy: but the members of the diet refusing to expose the German integrity to fresh reproach, to a second violation of public faith, and Charles being not less unwilling to bring a stain upon the beginning of his administration by such an ignominious measure, Luther was permitted to depart in safety. A few days after he left the city, a severe edict was issued in the emperor's name, and by authority of the diet, forbidding any prince to harbour him, and requiring all to concur in seizing his person, as soon as his safe-conduct was expired. But the elector of Saxony, his faithful patron, took him again, though secretly, under his protection. Luther, in solitude, propagated his opinions; and Charles, for a time, found other matters to engage his attention.

The attention of the emperor was attracted by several events, which will be more fully related in the progress of this work. First the Spaniards broke out into open rebellion from the disgust they conceived on account of the neglect of their sovereign. Francis seized this opportunity to attempt the conquest of Navarre, and war, thus begun, soon spread to other quarters; to the Netherlands and the frontiers of Germany; but fell with its greatest weight upon Italy.

Francis was defeated, taken at Pavia in 1525, and Rome was plundered by the adherents of Charles, in 1527. Hungary in the mean time was harassed by the Turks, who were, however, checked by the emperor's brother Ferdinand.

The reformation had gained much ground in Germany, during that long interval of tranquillity, which the absence of the emperor, the contests between him and the pope, and his attention to the war with France, afforded its promoters. Most of the princes who had embraced Luther's opinions, had not only established in their territories that form of worship which he approved, but had entirely suppressed the rites of the Romish church. Many of the free cities had imitated their conduct. Almost one half of the Germanic body had revolted from the papal see; and its dominions, even in that part which had not yet shaken off the yoke of Rome, were considerably weakened by the example of the neighbouring states, or by the secret progress of those doctrines which had undermined it among them.

Whatever satisfaction the emperor, while at open enmity with the pope, might have felt in those events which tended to mortify and embarrass his holiness, he was at the same time sensible, that the religious divisions in Germany, would, in the end, prove hurtful to the imperial authority. Accordingly, the prospect of an accommodation with Clement no sooner opened, than Charles appointed a diet of the empire to be held at Spire, in order to take into consideration the state of religion. The diet, after much dispute, issued a decree, confirming the edict published against Luther at Worms, and prohibiting any further innovations in religion, but particularly the abolition of the mass, before the meeting of a general council. Against this decree, as unjust and impious, the elector of Saxons, the landgrave of Hesse, the duke of Lunenburg, the prince of Anhalt, together with the deputies of 14 imperial or free cities, entered a solemn protest. On that account they were called Protestants; an appellation which has since become common to all the sects, of whatever denomination, that have revolted from the church of Rome.

Such was the state of religious matters, when Charles returned to Germany. He assisted in person at the diet of Augsburg; where the protestants presented their system of opinions, composed by Melancthon, the most learned and moderate of all the reformers. This system, known by the name of the Confession of Augsburg, from the place where it was presented, was publicly read in the diet. Some popish divines were appointed to examine it; they brought in their animadversions; a dispute ensued between them and Melancthon, seconded by some of his disciples; and, as in most cases of that kind, nothing was determined. Every one remained in his own way of thinking.

From the protestant divines, Charles turned to the princes, their patrons, but with no better success; they refused to abandon what they deemed the cause of God, for any earthly advantage. Coercive measures were resolved upon. A decree was issued, condemning most of the peculiar tenets held by the protestants, and prohibiting any one to tolerate those who taught them.

In consequence of this decree, which they considered as a prelude to the most violent persecution, the protestant princes assembled at Smalkalde, and concluded a league of mutual defence; and the emperor's ambition, which led him to get his brother elected king of the Romans, in order to continue the imperial crown in his family, furnished the confederates with a decent pretence for courting the alliance of foreign princes. The kings of France and England secretly agreed to support them. Meanwhile, many circumstances and reflections convinced Charles that this was not a proper season to attempt the extirpation of heresy by the sword. He saw Solyman ready to enter Hungary, with the whole force of the Turkish empire, in order to wipe off the disgrace which his arms had sustained in the former campaign; he felt the necessity of union, not only for the accomplishment of his future schemes, but for ascertaining his present safety. The peace with France was precarious: and he was afraid that the followers of Luther, if treated with severity, might forget that they were Christians, and join the infidels. Policy made him drop the mask of zeal. By a treaty concluded at Nuremberg, and solemnly ratified in the diet at Ratisbon, the emperor granted the protestants liberty of conscience until the meeting of a general council; and they agreed, on their part, to assist him powerfully against the Turks.

This treaty was no sooner signed, than Charles received information, that Solyman had entered Hungary at the head of 300,000 men. The imperial army, consisting of 90,000 disciplined foot, and 30,000 horse, besides a prodigious number of irregulars, immediately assembled in the neighbourhood of Vienna. Of this vast body, the emperor, for the first time, took the command in person: and Europe waited, in anxious suspence, the issue of a decisive battle between the two greatest potentates in the universe.

But each dreading the others power and good fortune, both conducted their operations with so much caution, that a campaign, from which the most important consequences had been expected, was closed without any memorable event. Solyman, finding it impossible to take advantage of an enemy always on his guard, marched back to Constantinople; and Charles, freed from so dangerous an invader, set out for Spain.

During the emperor's absence, great disorders prevailed in Germany, occasioned by the fanaticism of a sect of reformers, distinguished by the name of Anabaptists, because they contended, that the sacrament of baptism should be administered only to persons grown up to years of understanding, and should be performed, not by sprinkling them with water, but by dipping them in it. This tenet was at least harmless; but they held others of more enthusiastic as well as dangerous nature. They maintained, that, among Christians, who have the precepts of the gospel to direct, and the spirit of God to guide them,

the office of magistrate is unnecessary, and an encroachment on spiritual liberty; that all distinctions of birth or rank ought to be abolished: that a community of goods should be established, and that every man may marry as many wives as he thinks proper.

Tenets so flattering to human weakness and human pride, naturally produced a number of converts, especially among the lower class of people. The peasants greedily embraced opinions which promised to place them on a level with their imperious masters They assembled in great bodies, and spread devastation wherever they came. But being destitute of a skilful leader, they were soon dispersed; and Muncer, the first anabaptist prophet, perished on a scaffold at Mulhausen, in 1525. Several of his followers, however, lurked in different places, and secretly propagated the opinions of their sect. At last, two anabaptist prophets, John Matthias, a baker of Harlem, and John Bocold, a journeyman taylor of Leyden, possessed with the rage of making proselytes, fixed their residence at Munster an imperial city in Westphalia; and privately assembling their associates from the neighbouring country, made themselves masters of the town, and expelled whom they pleased of the inhabitants.

Here the anabaptists formed a singular kind of republic, over which Matthias assumed absolute authority, and wrote to his brethren in the Low Countries, inviting them to assemble at Mount Sion, so he termed Munster, that they might thence set out in a body, to reduce all nations under their dominion. Meanwhile, the bishop of Munster having assembled a considerable army, advanced to besiege the town. On his approach, Matthias sallied out, at the head of a chosen band, forced his camp, and returned to the city loaded with glory and spoil. But his success proved fatal to him. Thinking nothing now impossible for the favourites of heaven, he went out to meet the enemy, accompanied by no more than 30 of his followers; boasting that, like Gideon, he would smite the host of the ungodly with a handful of men. The prophet and his 30 associates were slain.

The anabaptists, however, did not despair; John of Leyden, their other Light, still remained. This man, less bold, but more ambitious than Matthias, assumed the title of king; and being young, and of a complexion equally amorous and enthusiastic, he exercised, in their utmost latitude, those principles of his sect which favoured sensual gratifications. He took, in a short time, no less than 14 wives. His example was followed by his brethren; no man remained satisfied with a single wife. The houses were searched; and young women grown up to maturity were instantly seized, and compelled to marry. Notwithstanding this sensuality, Munster made a gallant defence; but the bishop's army being reinforced, and the besieged greatly distressed for want of provisions, one of their own body deserted, and betrayed them. The city was taken by surprize: most of the anabaptists were slain; and their king was made prisoner and put to death by the most exquisite and lingering tortures, all which he bore with astonishing fortitude.

This year was also distinguished by an expedition of the emperor against the pirates of Barbary, which exhausted his treasures, and answered no important purpose. Hostilities recommenced between Charles and Francis, while disaffection prevailed in

Spain and the Netherlands. For these reasons, it was not before 1540, that Charles found leisure to turn his attention towards the affairs of Germany. The protestants having in vain demanded a general council, pressed him earnestly to appoint a conference between a select number of divines of each party, in order to examine the points in dispute. For this purpose, a diet was assembled at Ratisbon: and such a conference, notwithstanding the opposition of the pope, was held with great solemnity in the presence of the emperor. But the divines chosen to manage the controversy, though men of learning and moderation, were only able to settle a few speculative opinions, all points relative to worship and jurisdiction serving only to inflame the minds of the disputants. Charles, therefore, finding his endeavours to bring about an accommodation ineffectual, and being impatient to close the diet, prevailed on the majority of the members to approve of the following edict of recess: "that the articles concerning which the divines had agreed, should be held as points decided; that those about which they differed, should be referred to the determination of a general council; or, if that could not be obtained, to a national synod; and should it prove impracticable also to assemble a synod of Germany, that a general diet of the empire should be called within 18 months, in order to give a final judgment on the whole controversy; that, in the mean time, no innovations should be made, nor any means employed to gain proselytes."

This edict gave great offence to the pope. The bare mention of allowing a diet, composed chiefly of laymen, to pass judgment in regard to articles of faith, appeared to him no less criminal and profane than the worst of those heresies which the emperor seemed so jealous to suppress. The protestants also were dissatisfied with it, as it considerably abridged the liberty which they at that time enjoyed. They murmured loudly against it; and Charles, unwilling to leave any seeds of discontent in the empire, granted them a declaration, exempting them from whatever they thought injurious or oppressive in the edict of recess, and ascertaining to them the full possession of all their former privileges.

The situation of the emperor's affairs, at this juncture, made these extraordinary concessions necessary. He foresaw a new rupture with France to be unavoidable and he was alarmed at the rapid progress of the Turks in Hungary. A great revolution had happened in that kingdom. John Zapol Scaepius, by the assistance of Solyman, had wrested from the king of the Romans a considerable part of that country. John died and left an infant son. Ferdinand attempted to take advantage of the minority, in order to repossess himself of the whole kingdom; but his ambition was disappointed, by the activity and address of George Martinuzzi, bishop of Waradin, who shared the regency with the queen. Sensible that he was unable to oppose the king of the Romans in the field, Martinuzzi satisfied himself with holding out the fortified towns, all which he provided with every thing necessary for defence; and he at the same time sent ambassadors to Solyman, beseeching him to extend toward the son that imperial protection which had so generously maintained the father on the throne. Ferdinand used his utmost endeavours to thwart this negotiation, and even meanly offered to hold the Hungarian crown on the same ignominious conditions by which John had obtained

it, that of paying tribute to the Porte. But the sultan saw such advantages from espousing the interest of the young king, that he instantly marched into Hungary; and the Germans, having formed the siege of Buda, were defeated with great slaughter before that city. Solyman, however, instead of becoming the protector of the infant sovereign whom he had relieved, made use of this success to extend his own dominions; he sent the queen and her son into Transylvania, which province he allotted them, and added Hungary to the Ottoman empire.

Happily for the protestants, Charles had received intelligence of this revolution before the close of the diet at Ratisbon; and in consequence of the concessions which he made them, he obtained such liberal supplies both of men and money, in order to prosecute the war against the Turks, as left him little anxiety about the security of Germany.

Now, therefore, he went on a second African expedition, in which he was unsuccessful, after losing great part of his army by the inclemency of the weather, famine, or the sword of the enemy.

In consequence of the resolution of the emperor Charles V. to humble the protestant princes, he concluded a disadvantageous treaty with Francis I. and a dishonourable truce with Solyman II. He stipulated, that his brother Ferdinand should pay an annual tribute to the Porte, for that part of Hungary which still acknowledged his sway, and that the sultan should retain the imperial and undisturbed possession of the other. Charles at the same time entered into an alliance with Paul III. the reigning pontiff, for the extirpation of heresy; or, in other words, for oppressing the liberties of Germany, under pretence of maintaining the jurisdiction of the holy see.

Meanwhile, a general council had been assembled at Trent, by the authority of the pope, in order to regulate the affairs of religion. But the protestants, though they had appealed to a general council, refused to acknowledge the legality of this, which they were sensible was convoked to condemn, not to examine their opinions. The proceedings of the council confirmed them in this resolution; they therefore renounced all connection with it; and as they had discovered the emperor's ambitious views, they began to prepare for their own defence.

The emperor, whose schemes were not yet ripe for execution, though much chagrined at this obstinacy, smothered his resentment; and, in order to gain time, he attempted anew that dissimulation which he had so often practised with success. He assured and endeavoured to persuade the princes of the Smalkaldic league, that he had no design to abridge their spiritual liberty. It being impossible, however, to conceal his military preparations, he declared, that he took arms, not in a religious, but in a civil quarrel; not to oppress those who continued to behave as quiet and dutiful subjects, but to humble the arrogance of such as had thrown off all that sense of subordination in which they were placed under him, as the head of the Germanic body. But the substance of his treaty with the pope, coming to light, these artifices did not long impose on the greater and sounder part of the protestant confederacy. Its more intelligent members saw, that not only the suppression of the reformed religion, but the extinction of the Ger-

man liberties was intended; and as they determined neither to renounce those sacred truths. the knowledge of which they had attained by means so wonderful, nor to abandon those civil rights which had been transmitted to them from their ancestors, they had immediately recourse to arms.

In the mean time, the death of Luther, their great apostle, threw the German protestants into much consternation, and filled the catholics with excessive and even indecent joy; neither party reflecting that his opinions were now so firmly rooted, as to stand in no farther need of his fostering hand. The members of the Smalkaldic league were also discouraged by the little success of their negotiations with foreign courts; having applied in vain for assistance, not only to the republic of Venice and the Swiss cantons, but to the kings of France and England. But they found at home no difficulty in bringing a sufficient force into the field.

Germany abounded at that time in inhabitants. The feudal institutions subsisted in full force, and enabled the nobles to call out their numerous vassals, and to put them in motion on the shortest warning. The martial spirit of the people, not broken or enervated by the introduction of commerce and arts, had acquired additional vigour during the continual wars in which they had been employed for half a century; either by the emperors or kings of France. On every opportunity of entering upon action, they were accustomed to run eagerly to arms; and to every standard that was erected, volunteers flocked from all quarters. Zeal seconded on this occasion their native ardour; men, on whom the doctrines of the reformation had made that deep impression which accompanies truth when first discovered, prepared to maintain it with proportional courage; and among a warlike people, it appeared infamous to remain inactive, when the defence of religion and liberty were the motives for drawing the sword. The confederates were therefore able, in a few weeks, to assemble an army of 70,000 foot and 1500 horse, provided with every thing necessary for the operations of war.

The emperor was in no condition to resist such a force; and had the protestants immediately proceeded to hostilities, they might have dictated their own terms. But they imprudently negotiated, instead of acting, till Charles received supplies from Italy and the Low Countries. He still, however, cautiously declined a battle, trusting that discord and the want of money would oblige the confederates to disperse. Meantime, he himself began to suffer from the want of forage and provisions. Great numbers of his foreign troops, unaccustomed to the climate or the food of Germany, were become unfit for service; and it still remained a doubtful point, whether his steadiness was most likely to fail, or the zeal of the confederates to be exhausted, when an unexpected event decided the contest, and occasioned a fatal reverse in their affairs.

Several of the protestant princes, overawed by the emperor's power, had remained neutral; while others, allured by the prospect of advantage, had voluntarily entered his service. Among the latter was Maurice, marquis of Misnia and Thuringia, of the house of Saxony; a man of bold ambition, extensive views, and profound political talents. After many conferences with Charles and his ministers, he concluded a treaty, by which he engaged to concur in assisting the emperor as a faithful subject; and

Charles, in return, stipulated to bestow on him all the spoils of his relation and benefactor, the elector of Saxony, his dignities, as well as territories.

These engagements, however, so contrary to all that is just and honourable among men, Maurice was able to conceal, as they had been formed with the most mysterious secrecy. And so perfect a master was he in the art of dissimulation, that the confederates, notwithstanding his declining all connection with them, and his singular assiduity in paying court to the emperor, seem to have entertained no suspicion of his designs. The elector of Saxony, when he marched to join his associates, even committed his dominions to the protection of Maurice, who undertook the charge with an insidious appearance of friendship. But scarce had the confederates taken the field, when he began to consult with the king of the Romans, how to invade those dominions he had engaged to defend ; and no sooner did he receive a copy of the imperial ban, denounced against his cousin and his father-in-law, the elector of Saxony and the landgrave of Hesse, as leaders of the confederacy, than he suddenly entered one part of the electoral territories, at the head of 12,000 men, while Ferdinand, with an army of Bohemians and Hungarians, over-ran the other.

The news of this violent invasion and the success of Maurice, who, in a short time, made himself master of the whole electorate of Saxony, except Wittenberg, Gotha, and Eisenach, no sooner reached the camp of the confederates, than they were filled with astonishment and terror. The elector immediately proposed to return home with his troops, in order to recover his hereditary dominions ; and his associates, forgetting that it was the union of their forces which had hitherto rendered the confederacy formidable, and more than once obliged the imperialists to think of quitting the field, consented to his proposal of dividing the army.

Ulm, one of the chief cities of Suabia, highly distinguished by its zeal for the Smalkaldic league, submitted to the emperor. An example once set for deserting the common cause, the rest of the members became instantly impatient to follow it, and seemed afraid, lest others, by getting the start of them in returning to their allegiance, should, on that account, obtain more favourable terms All the terms, however, were sufficiently severe. Charles, being in great want of money, not only imposed heavy fines upon the princes and cities that had taken arms against him, but obliged them to deliver up their artillery and warlike stores, and to admit garrisons in their principal towns and places of strength. Thus a confederacy, so powerful lately as to shake the imperial throne, fell to pieces, and was dissolved in the space of a few weeks; scarce any of the associates now remaining in arms, except the elector of Saxony, and the landgrave of Hesse, whom the emperor was at no pains to reconcile, having marked them out as the victims of his vengeance.

Meanwhile, the elector, having expelled the invaders from Saxony, not only recovered, in a short time, possession of his own territories, but over-ran Misnia, and stripped his rival of all that belonged to him, except Dresden and Leipsic ; while Maurice, obliged to abandon the field to superior force, and to shut himself up in his capital, dispatched courier after courier to the emperor, representing his dangerous situation,

and soliciting him, with the most earnest importunity, to march immediately to his relief.

In the mean time, a powerful league was formed, in which France engaged the assistance of Solyman II. of Venice, of England, and of Rome, to resist the progress of the imperial arms. But this was frustrated by the death of Francis I. which delivered Charles from the impending danger.

This interval of security the emperor seized, to take vengeance on the elector and the landgrave; and, as he was uncertain how long the calm might continue, he instantly marched into Saxony, at the head of 16,000 veterans. The elector's forces were more numerous, but they were divided. Charles did not allow them time to assemble. He attacked the main body at Mulhausen, near Mulberg; defeated it, after an obstinate dispute; and took the elector prisoner. The captive prince was immediately conducted to the emperor, whom he found standing on the field of battle, in the full exultation of victory. The elector's behaviour, even in this unfortunate and humbling condition, was alike equal, magnanimous, and decent. It was worthy of his gallant resistance. He alike avoided a sullen pride and a mean submission. "The fortune of war," said he, "most gracious emperor, has made me your prisoner, and I hope to be treated"—Here Charles rudely interrupted him; "And am I then, at last, acknowledged to be emperor? Charles of Ghent was the only title you lately allowed me. You shall be treated as well as you deserve;" turning from him with a haughty air. To this cruel repulse, the king of the Romans added reproaches in his own name, using expressions still more harsh and insulting. The elector made no reply; but, with an unaltered countenance, which discovered neither astonishment nor dejection, accompanied the Spanish soldiers appointed to guard him.

The emperor speedily marched towards Wittenberg, the capital, in that age of the electoral branch of the Saxon family, hoping that, while the consternation, occasioned by his victory, was still recent, the inhabitants would submit as soon as he appeared before the walls. But Sybilla of Cleves, the elector's wife, a woman equally distinguished by her virtue and abilities, instead of obeying the imperial summons, or abandoning herself to tears and lamentations, on account of her husband's misfortunes, animated the citizens, by her example, as well as exhortation, to a vigorous defence; and Charles, finding he could not suddenly reduce the place by force, had recourse to means, at once ungenerous and unwarlike, but more expeditious and certain. He summoned Sybilla a second time, to open the gates; informing her, that, in case of refusal, the elector should answer, with his head, for her obstinacy. And, in order to convince her that he was in earnest, he brought his prisoner to an immediate trial, subjecting the greatest prince in the empire to the jurisdiction of a court martial, composed of Spanish and Italian officers; who, founding their charge against him upon the imperial ban, a sentence pronounced by the sole authority of Charles, and destitute of every legal formality which could render it valid, presumed the elector convicted of treason and rebellion, and condemned him to suffer death, by being beheaded.

Frederic was amusing himself in playing at chess with his fellow prisoner, Ernest of Brunswick, when this decree was intimated to him. He paused a moment, though without any symptom of surprize or terror; and, after taking notice of the irregularity, as well as injustice of the proceedings against him, "It is easy," said he, "to comprehend the emperor's scheme. I must die, because Wittemberg refuses to surrender; and I will lay down my life with pleasure, if, by that sacrifice, I can preserve the dignity of my house, and transmit to my posterity the inheritance which I received from my ancestors. Heaven grant," continued he, "that this sentence may affect my wife and children no more than it does me! that they may not, for the sake of adding a few years to a life already too long, renounce honours and territories which they were born to possess!" He then turned to his antagonist, challenged him to continue the game, and played with his usual attention and ingenuity.

It happened, as the elector had feared, the account of his condemnation was not received with the same indifference at Wittemberg. Sybilla, who had supported, with such undaunted fortitude, her husband's misfortunes, while she imagined his person was free from danger, felt all her resolution fail, the moment his life was threatened. Anxious for his safety, she despised every other consideration; and was willing to make any sacrifice, in order to appease the rage of an incensed conqueror.

Meantime, Charles, perceiving that the expedient he had tried began to produce the intended effect, fell, by degrees, from his former firmness, and allowed himself to soften into promises of clemency and forgiveness, if the elector would show himself worthy of favour, by submitting to certain conditions. Frederic, on whom the consideration of what he himself might suffer, had made no impression, was melted by the tears of a wife whom he loved. He could not resist the entreaties of his family. In compliance with their repeated solicitations, he agreed to articles of accommodation, which he would otherwise have rejected with disdain; to resign the electoral dignity, to put the imperial troops immediately in possession of his capital, and to remain the emperor's prisoner. In return for these important concessions, the emperor promised, not only to spare his life, but to settle on him and his posterity the city of Gotha and its territory, together with a revenue of 50,000 florins. The Saxon electorate was instantly bestowe upon Maurice. This sacrifice Charles was obliged to make: as it was neither safe nor prudent to violate his engagements with a warlike prince, whom he had seduced by ambitious hopes to abandon his natural allies, and whose friendship was still necessary.

The landgrave of Hesse, Maurice's father-in-law, was still in arms, but he thought no more of resistance. Alarmed at the fate of the elector of Saxony, his only care was how to procure favourable terms from the emperor, whom he now viewed as a conqueror, to whose will there was a necessity of submitting. Maurice encouraged this tame spirit, by magnifying Charles's power, and boasting of his own interest with his victorious ally.

The landgrave accordingly threw himself at the emperor's feet, after ratifying what terms he was pleased to impose, Maurice and the elector of Brandenberg being sureties for his personal freedom. But his submission was no sooner made, than Charles ordered

him to be arrested, and detained prisoner under the custody of a Spanish guard; and when the elector and Maurice, filled with indignation at being made the instruments of deceiving and ruining their friend, represented the infamy to which they would be exposed, unless the landgrave was set at liberty; that they were bound to procure his release, having pledged their faith to that effect, and even engaged their own persons as sureties for his, the emperor, who no longer stood in need of their services, coolly replied, that he was ignorant of their particular or private transactions with the landgrave; nor was his conduct to be regulated by theirs. "I know," added he, in a decisive tone, "what I myself have promised; for that alone I am answerable." These words put an end to the conference, and all future entreaties proved ineffectual.

Charles, having now in his power the two greatest princes of the empire, carried them about with him in triumph; and, having humbled all whom he had not attached to his interest, proceeded to exercise the rights of a conqueror. He ordered his troops to seize the artillery and military stores of all who had been members of the Smalkaldic league; and he levied, by his sole authority, large sums, as well upon those who had served him with fidelity, as upon such as had appeared in arms against him. Upon the former, as their contingent towards a war, undertaken, as he pretended, for the common benefit; upon the latter, as a fine, by way of punishment for their rebellion. His brother Ferdinand tyrannized with still more severity over his Bohemian subjects, who had taken arms in support of their civil and religious liberties: he stript them of all their antient privileges, and loaded them with oppressive taxes.

The good fortune, or, as it has been called, the Star of the house of Austria, was now at its height. The emperor, having humbled, and, as he imagined, subdued the independent spirit of the Germans, summoned a diet to meet at Augsburg, "in order to compose finally the controversies with regard to religion, which had so long disturbed the German empire;" or, in other words, to enslave the minds of those whose persons and properties were already at his disposal. He durst not, however, commit to the free suffrage of the Germans, broken as their spirit was by subjection, the determination of a matter so interesting. He therefore entered the city at the head of his Spanish troops, and assigned them quarters there. He cantoned the rest of his army in the adjacent villages; and he took possession, by force, of the cathedral, together with one of the principal churches, where his priests re-established, with great pomp, the rites of the Romish worship. These preliminary steps being taken, in order to intimidate the members, and to make them acquainted with the emperor's pleasure, he opened the diet with a speech, in which he pointed out the fatal effects of the religious dissentions which had arisen in Germany; exhorted them to recognise the authority of the general council, which he had taken so much pains to procure; and to stand the award of an assembly to which they had originally appealed, as having the sole right of judgment in the case.

But the council, to which Charles wished to refer all controversies, had undergone, by this time, a violent change. The same jealousy which had made the pope recal his troops, had also made him translate the council to Bologna, a city subject to his own

jurisdiction. The diet of Augsburg, overawed by threats, and influenced by promises, petitioned the pope, at the emperor's desire, in the name of the whole Germanic body, to enjoin the prelates, who had retired to Bologna, to return again to Trent, and renew their deliberations in that place. But Paul eluded the demand. He made the fathers at Bologna, to whom he referred the petition of the diet, put a direct negative upon the request; and Charles, as he could no longer hope to acquire such an ascendant in the council, as to render it subservient to his ambitious aim, and to prevent the authority of so venerable an assembly from being turned against him, sent two Spanish lawyers to Bologna, who, in presence of the legates, protested, That the translation of the council to that place had been unnecessary, and founded on false or frivolous pretexts; that while it continued to meet there, it ought to be deemed an unlawful and schismatical conventicle, and all its decisions held null and void; and that, as the pope, together with the corrupt ecclesiastics who depended upon him, (those who depended upon Charles having remained at Trent) had abandoned the care of the church, the emperor, as its protector, would employ all the power which God had committed to him, in order to preserve it from those calamities with which it was threatened.

In consequence of this resolution, Charles employed some divines of known abilities and learning, to prepare a system of doctrine, which he presented to the diet, as what all should conform to, "until a council, such as they wished for, could be called." Hence the name Interim, by which this system is known. It was conformable in almost every article to the tenets of the Romish church; and the Romish rites were enjoined, but all disputed doctrines were expressed in the softest words, in scripture phrases, or in terms of studied ambiguity. In regard to two points only, some relaxation of popish rigour was granted, and some latitude in practice admitted. Such ecclesiastics as had married, and did not choose to part from their wives, were allowed, nevertheless, to perform their sacred functions; and those provinces which had been accustomed to partake of the cup, as well as of the bread in the communion, were still indulged the privileges of receiving both.

This treatise being read in presence of the members, according to form, the archbishop of Mentz, president of the electoral college, rose up hastily, as soon as it was finished, and, having thanked the emperor for his unwearied endeavours to restore peace to the church, signified, in the name of the diet, their approbation of the system of doctrine which his imperial majesty had prepared, together with their resolution of conforming to it in every particular. And, although the whole assembly was amazed at a declaration so unprecedented and unconstitutional, as well as at the elector's presumption, in pretending to deliver the sense of the diet upon a point which had not hitherto been the subject of consultation or debate, not one member had the courage to contradict what he had said. Charles, therefore, held the archbishop's declaration to be a ratification of the Interim, and prepared to enforce the observance of it as a decree of the empire.

The Interim was accordingly published immediately after the dissolution of the diet, in the German, as well as in the latin language; but, like all conciliating schemes pro-

posed to men heated by disputation, it pleased neither party. The protestants thought it granted too little indulgence; the catholics too much; both were dissatisfied. The emperor, however, fond of his plan, adhered to his resolution of carrying it into execution. But this proved one of the most difficult and dangerous undertakings in his reign; for, although three protestant princes, Maurice, the elector of Palatine, and the elector of Brandenburg, agreed to receive the Interim, several others remonstrated against it; and the free cities, with one voice, joined in refusing to admit it, till force taught them submission. Augsburg and Ulm being barbarously stript of their privileges, on account of their opposition, many other cities feigned compliance. But this obedience, extorted by the rigour of authority, produced no change in the sentiments of the Germans. They submitted, with reluctance, to the power that oppressed them; and although, for a time, they concealed their resentment, it was daily gathering force, and soon broke forth with such a violence that shook the imperial throne.

In this moment of general submission, it is worthy of remark, that the elector of Saxony, though the emperor's prisoner, and tempted both by threats and promises, refused to lend his sanction to the Interim. After declaring his fixed belief in the doctrines of the reformation, "I cannot now," said he, "in my old age, abandon the principles for which I early contended; nor, in order to procure freedom during a few declining years, will I betray that good cause, on account of which I have suffered so much, and am willing to suffer; better for me to enjoy, in this solitude, the esteem of virtuous men, together with the approbation of my own conscience, than to return into the world with the imputation and guilt of apostacy, to disgrace and embitter the remainder of my days."

In 1550, the emperor held a diet at Augsburg, in order to enforce the observation of the Interim, and to procure a more authentic act of the empire, acknowledging the jurisdiction of the council, then about to assemble at Trent, as well as an explicit promise of conforming to its decrees. And such absolute ascendancy had Charles acquired over the members of the Germanic body, that he procured a recess, in which the authority of the council was recognised, and declared to be the proper remedy for the evils which afflicted the church. The observation of the Interim was more strictly enjoined than ever; and the emperor threatened all who had hitherto neglected or refused to conform to it, with the severest effects of his vengeance, if they persisted in their disobedience.

During the meeting of this diet, a new attempt was made to procure liberty to the landgrave. Nowise reconciled by time to his condition, he grew every day more impatient of restraint, and often applied to his sureties, Maurice and the elector of Brandenburg, who took every opportunity of soliciting the emperor in his behalf, though without effect. He now commanded his sons to summon them, with legal formality, to perform their engagements, by surrendering themselves to be treated as the emperor treated him. Thus, pushed to extremity, the sureties renewed their application to Charles. Resolved not to grant their request, but anxious to get rid of their incessant importunity, the emperor endeavoured to prevail on the landgrave to give up the obli-

gation which he had received from them; and when that prince refused to part with a security which he deemed essential to his safety, Charles, by a singular act of despotism, cut the knot which he could not untie. As if faith, honour, and conscience, had been subjected to his sway, he, by a public deed, annulled the bond which Maurice and the elector of Brandenburg had granted, and absolved them from all their obligations to the landgrave! A power of cancelling those solemn contracts, which are the foundation of that mutual confidence whereby men are held together in social union, was never claimed by the most despotic princes or arrogating priests of heathen antiquity: that enormous usurpation was reserved for the Roman pontiffs, who had rendered themselves odious by the exercise of such a pernicious prerogative; all Germany was, therefore, filled with astonishment, when Charles assumed the same right. The princes, who had hitherto contributed to his aggrandisement, began to tremble for their own safety, and to take measures for preventing the danger.

The first check which Charles met with in his ambitious projects, and which convinced him that the Germans were not yet slaves, was in his attempt to transmit the empire, as well as the kingdom of Spain, and his dominions in the Low Countries, to his son Philip. He had formerly assisted his brother Ferdinand in obtaining the dignity of king of the Romans: and that prince had not only studied to render himself acceptable to the people, but had a son who was born in Germany grown up to the years of manhood, and who possessed, in an eminent degree, such qualities as rendered him the darling of his countrymen. The emperor, however, warmed with contemplating this vast design, flattered himself that it was not impossible to prevail on the electors to cancel their former choice of Ferdinand, or, at least, to elect Philip a second king of the Romans, substituting him as next in succession to his uncle. With this view, he took Philip, who had been educated in Spain, along with him to the diet at Augsburg, that the Germans might have an opportunity to observe and become acquainted with the prince, in whose behalf he solicited their interest; but no sooner was the proposal made known, than all the electors, the ecclesiastical as well as secular, concurred in expressing such strong disapprobation of the measure, that Charles was obliged to drop his project, as impracticable. They foresaw that, by continuing the imperial crown like an hereditary dignity in the same family, they should give the son an opportunity of carrying on that system of oppression which the father had begun, and put it in his power to overturn whatever was yet left entire in the antient and venerable fabric of the German constitution.

In the mean time, the council of Trent proceeded to determine the great points in controversy concerning the sacrament of the Lord's supper, penance, and extreme unction: and the emperor strained his authority to the utmost, in order to establish the reputation and jurisdiction of that assembly.

The protestants were prohibited to teach any doctrine contrary to its decrees or to the tenets of the Romish church; and, on their refusing compliance, their pastors were ejected and exiled; such magistrates as had distinguished themselves by their attachment to the new opinions were dismissed; their offices were filled with the most bigoted of

their adversaries; and the people were compelled to attend the ministration of priests whom they regarded as idolaters, and to submit to the authority of rulers whom they detested as usurpers.

These tyrannical measures fully opened the eyes of Maurice of Saxony, and other Lutheran princes, who, allured by the promise of liberty of conscience, and the prospect of farther advantages, had assisted the emperor in the war against the confederates of Smalkalde. Maurice, in particular, who had long beheld, with jealous concern, the usurpations of Charles, now saw the necessity of setting bounds to them; and he, who had perfidiously stript his nearest relation and benefactor of his hereditary possessions, and been chiefly instrumental in bringing to the brink of ruin the civil and religious liberties of his country, became the deliverer of Germany.

The policy with which Maurice conducted himself in the execution of his design was truly admirable. He was so perfect a master of address and dissimulation, that he retained the emperor's confidence, while he recovered the good opinion of the protestants. As he knew Charles to be inflexible, with respect to the submission which he required to the Interim, he did not hesitate a moment whether he should establish that form of doctrine and worship in his dominions: he even undertook to reduce to obedience the citizens of Magdeburg, who persisted in rejecting it; and he was chosen general, by a diet assembled at Augsburg, of the imperial army levied for that purpose. But he, at the same time, issued a declaration, containing professions of his zealous attachment to the reformed religion, as well as of his resolution to guard against all the errors and encroachments of the papal see; and he entered his protest against the authority of the council of Trent, unless the protestant divines had a full hearing granted them, and were allowed a decisive voice in that assembly; unless the pope renounced his pretensions to preside in it, would engage to submit to its decrees, and to absolve the bishops from their oath of obedience, that they might deliver their sentiments with greater freedom. He reduced Magdeburg after a seige of 12 months, protracted by design, in order that his schemes might be ripened before his army was disbanded. The public articles of capitulation were perfectly conformable to the emperor's views, and sufficiently severe. But Maurice gave the magistrates secret assurances that their city should not be dismantled; and that the inhabitants should neither be disturbed in the exercise of their religion, nor deprived of any of their antient privileges; and they, in their turn, elected him their burgrave, a dignity which had formerly belonged to the electoral house of Saxony, and which entitled its possessor to very ample jurisdiction, both in the city and its dependencies.

Far from suspecting any thing fraudulent or collusive in the terms of accommodation, the emperor ratified them without hesitation, freely absolving the Magdeburgers from the sentence of ban denounced against them; and Maurice, under various pretences, kept his veteran troops in pay, while Charles, engaged in directing the affairs of the council, entertained no apprehension of his designs. But, previous to the unfolding of these designs, some account must be given of a new revolution in Hungary, which contributed, not a little, toward the extraordinary success of Maurice's operations.

Solyman had deprived the young king of Hungary of the dominions which his father had left him, and granted that unfortunate prince the country of Transylvania, a province of his paternal kingdom. The government of this province, together with the care of educating the infant king, (for the sultan still allowed him to retain that title,) was committed to Isabella, the queen-mother, and Martinuzzi, bishop of Waradin, whom the late king of Hungary had appointed his son's guardians, and regents of his dominions. This co-ordinate jurisdiction occasioned the same dissensions in a small principality, which it would have excited in a great monarchy. The queen and bishop grew jealous of each other's authority: both had their partizans amongst the nobility; but as Martinuzzi, by his superior talents, began to acquire the ascendant, Isabella courted the protection of the Turks. The politic prelate saw his danger; and, through the mediation of some of the nobles, who were solicitous to save their country from the calamities of a civil war, he concluded an agreement with the queen. But he, at the same time, secretly dispatched one of his confidants to Vienna, and entered into a negotiation with the king of the Romans, whom he offered to assist in expelling the Turks, and in recovering possession of the Hungarian throne.

Allured by such a flattering prospect, Ferdinand agreed, notwithstanding his truce with Solyman, to invade the principality of Transylvania. The troops destined for that service, consisting of veteran Spanish and German soldiers, were commanded by Castaldo, marquis de Piadena, an officer of great knowledge in the art of war, who was powerfully seconded by Martinuzzi and his faction among the Hungarians; and the sultan being then at the head of his forces on the borders of Persia, the Turkish bashaws could not afford the queen such immediate or effectual assistance as the exigency of her affairs required. She was, therefore, obliged to listen to such conditions as she would, at any other time, have rejected with disdain. She agreed to give up Transylvania to Ferdinand, and to make over to him her son's title to the crown of Hungary, in exchange for the principalities of Opphelen and Ratibor, in Silesia, for which she immediately set out.

Martinuzzi, as the reward of his services, was appointed governor of Transylvania, with almost unlimited authority; and he proved himself worthy of it. He conducted the war against the Turks with equal ability and success; he recovered some places of which they had taken possession; he rendered their attempts to reduce others abortive; and he established the dominion of the king of the Romans, not only in Transylvania, but in several of the adjacent countries. Always, however, afraid of the talents of Martinuzzi, Ferdinand now became jealous of his power: and Castaldo, by imputing to the governor designs which he never formed, and charging him with actions of which he was not guilty, at last convinced the king of the Romans, that, in order to preserve his Hungarian crown, he must cut off that ambitious prelate. The fatal mandate was accordingly issued: Castaldo willingly undertook to execute it: Martinuzzi was assassinated. But Ferdinand, instead of the security which he expected from that barbarous measure, found his Hungarian territories only exposed to more certain danger. The nobles, detesting such jealous and cruel policy, either retired to their own estates

or grew cold in the service, if they continued in the Austrian army; while the Turks, encouraged by the death of an enemy, whose vigour and abilities they dreaded, prepared to renew hostilities with fresh vigour.

Maurice, in the mean time, having almost finished his intrigues and preparations, was on the point of taking the field against the emperor. He had concluded a treaty with Henry II. of France, who wished to distinguish himself by trying his strength against the same enemy, whom it had been the glory of his father's reign to oppose. But as it would have been indecent in a popish prince to undertake the defence of the protestant church, the interests of religion, how much soever they might be affected by the treaty, were not once mentioned in any of the articles. The only motives assigned for now leaguing against Charles, were to procure the landgrave liberty, and to prevent the subversion of the antient constitution and laws of the German empire. Religious concerns, the confederates pretended to commit entirely to the care of providence.

Having secured the protection of the French monarch, Maurice proceeded with great confidence, but with equal caution, to execute his plan. As he judged it necessary to demand once more, before he took off the mask, that the landgrave should be set at liberty, he sent a solemn embassy, in which most of the German princes joined, to the emperor at Inspruck, in order to enforce his request. Constant to his system, in regard to the captive prince, Charles eluded the demand, though urged by some powerful intercessors. But his application, though of no benefit to the landgrave, was of infinite service to Maurice. It served to justify his subsequent proceedings, and to demonstrate the necessity of taking arms, in order to extort that equitable succession, which his mediation or entreaty could not obtain. He accordingly dispatched Albert of Brandenburg to Paris, to hasten the march of the French army: he took measures to bring his own troops together on the first summons; and he provided for the security of Saxony while he should be absent.

All these complicated operations were carried on with so much secrecy, as to elude the observation of Charles, whose sagacity, in observing the conduct of all around him, commonly led him to excess of distrust. He remained in perfect tranquillity at Inspruck, solely occupied in counteracting the intrigues of the pope's legate at Trent, and in settling the conditions on which the protestant divines should be admitted into the council. Even Granville, bishop of Arras, his prime minister, though one of the most subtle statesmen of that, or, perhaps, of any age, was deceived by the exquisite address with which Maurice concealed his designs. "A drunken German head," replied he, to the duke of Alva's suspicions, concerning the elector's sincerity, "is too gross to form any scheme which I cannot easily penetrate and baffle." Granville was, on this occasion, however, the dupe of his own artifice. He had bribed Maurice's ministers, on whose information he depended for their master's intentions; but that prince having fortunately discovered their perfidy, instead of punishing them for their crime, dexterously availed himself of their fraud. He affected to treat these ministers with greater confidence than ever: he admitted them into his consultations, and seemed to lay open his heart to them; but he took care, all the while, to make them acquainted

with nothing but what it was his interest should be known, and they transmitted to Inspruck such accounts, as lulled the crafty Granville in security.

At last, Maurice's preparations were completed: and he had the satisfaction to find, that his designs were still unknown. But, although ready to take the field, he did not yet lay aside the arts he had hitherto employed. Pretending to be indisposed, he dispatched one of the ministers whom Granville had bribed, to inform the emperor, that he meant soon to wait upon him at Inspruck, and to apologize for his delay. In the mean time, he assembled his army, which amounted to 20,000 foot and 5,000 horse, publishing, at the same time, a manifesto, containing his reasons for taking arms; namely, to secure the protestant religion, to maintain the German constitution, and the landgrave of Hesse from the miseries of a long and unjust imprisonment. To this the king of France, in his own name, added a manifesto, in which he assumed the extraordinary appellation of protector of the liberties of Germany and its captive princes.

No words can express the emperor's astonishment at events so unexpected. He was not in a condition to oppose such formidable enemies. His embarrassment increased their confidence: their operations were equally bold and successful. The king of France immediately entered Lorrain, made himself master of Toul, Verdun, and Metz; while Maurice, no less intrepid and enterprising in the field than cautious and crafty in the cabinet, traversed all Upper Germany, every where reinstating the magistrates whom Charles had deposed, and putting the ejected protestant ministers in possession of the churches.

The emperor had recourse to negotiation, the only resource of the weak; and Maurice, conscious of his own political talents, and willing to manifest a pacific disposition, agreed to an interview with the king of the Romans in the town of Lintz, in Austria, leaving an army to proceed on its march, under the command of the duke of Mecklenburg. Nothing was determined in the conference at Lintz, except that another should be held at Passau. Meanwhile, Maurice continued his operations with vigour. He marched directly towards Inspruck: and, hoping to surprize the emperor in that open town, he advanced with the most rapid motion that could be given to so great a body of men, forcing several strong passes, and bearing down all resistance.

Charles was happily informed of his danger a few hours before the enemy's arrival; and, although the night was far advanced, dark and rainy, he immediately fled over the Alps in a litter, being so much afflicted with the gout as to be incapable of any other mode of travelling. Enraged that his prey should escape him when he was just on the point of seizing it, Maurice pursued the emperor and his attendants some miles; but, finding it impossible to overtake men, whose flight was hastened by fear, he returned to Inspruck, and abandoned the emperor's baggage to the pillage of his soldiers. Meantime, Charles pursued his journey, and arrived in safety at Villach in Carinthia, where he continued till matters were finally settled with the protestant princes.

In consequence of Maurice's operations, the council of Trent broke up. The German prelates, anxious for the safety of their territories, returned home; the rest were extremely impatient to be gone; and the legate, who had hitherto disappointed all the

endeavours of the imperial ambassadors to procure the protestant divines an audience in the council, gladly laid hold on such a plausible pretext for dismissing an assembly, which he had found so difficult to govern. The breach which had been made in the church, instead of being closed, was widened; and all mankind were made sensible of the inefficacy of a general council for reconciling the contending parties.

The victorious Maurice repaired to Passau, on the day appointed for the second conference with the king of the Romans: and, as matters of the greatest consequence to the future peace and independencies of the empire were then to be agitated, thither resorted the ministers of all the electors, together with deputies from most of the considerable princes and free cities. The elector limited his demand to three articles set forth in a manifesto: namely, the liberty of the landgrave, the public exercise of the protestant religion, and the re-establishment of the antient constitution of Germany.

These demands appearing extravagant to the imperial ambassadors, they were presented by Ferdinand to the emperor in person, at Villach, in the name of all the princes of the empire, popish as well as protestant: in the name of such as had assisted in forwarding his ambitious schemes, as well as of those who had viewed the progress of his power with jealousy and dread. Unwilling, however, to forego at once objects which he had long pursued with ardour and hope, Charles, notwithstanding his need of peace, was deaf to the united voice of Germany. He rejected the proffered terms with disdain; and Maurice, well acquainted with the emperor's arts, suspecting that he meant only to amuse and deceive, by a show of negotiation, immediately rejoined his troops, and laid seige to Frankfort on the Maine. This measure had the desired effect. Firm and haughty as his nature was, Charles found it necessary to make concessions; and Maurice thought it more prudent to accept of conditions less advantageous than those he had proposed, than again commit all to the doubtful issue of war. He therefore repaired once more to Passau, renewed the congress, and concluded a peace on the following terms: "The confederates shall lay down their arms before the 12th day of August; the landgrave shall be set at liberty, on or before that day; a diet shall be held within six months, in order to deliberate concerning the most effectual method of preventing, for the future, all dissensions concerning religion; in the mean time, no injury shall be offered to such as adhere to the confession of Augsburg, nor shall the catholics be molested in the exercise of their religion; the imperial chamber shall administer justice impartially to persons of both parties, and protestants be admitted indiscriminately with catholics to sit as judges in that court; the encroachments, said to have been made upon the constitution and liberties of Germany, shall be remitted to the consideration of the approaching diet of the empire, and if that diet should not be able to terminate the disputes respecting religion, the stipulations in the present treaty, in behalf of the protestants, shall continue for ever in full force."

Such was the memorable treaty of Passau, which set limits to the authority of Charles V. overturning the vast fabric which he had employed so many years in erecting, and establishing the protestant church in Germany, upon a firm and secure basis. It is singular, that, in this treaty, no article was inserted in favour of the king of France,

to whom the confederates had been so much indebted for their success. But Henry II. experienced only the treatment which every prince, who lends his aid to the authors of a civil war, may expect. As soon as the rage of faction began to subside, and any prospect of accommodation to open, his services were forgotten; and his associates made a merit with their sovereign of the ingratitude with which they had abandoned their protector.

The treaty of Passau was no sooner signed, than Maurice, the deliverer of Germany, marched into Hungary against the Turks, at the head of 20,000 men, in consequence of his engagements with Ferdinand, whom the hopes of such assistance had made a most zealous advocate of the confederates. But the vast superiority of the Turkish armies, together with the dissensions between Maurice and Castaldo, the Austrian general, who was piqued at being superceded in the command, prevented the elector from performing any thing in that country worthy of his former fame, or of much benefit to the king of the Romans.

Meantime Germany was still disturbed by the restless ambition of Albert of Brandenburg, who had refused to be comprehended in the peace of Passau; and as that prince obstinately continued his violences, notwithstanding a decree of the imperial chamber, a league was formed against him by the most powerful princes in the empire, of which Maurice was declared the head. This confederacy, however, wrought no change in the sentiments of Albert. But as he knew that he could not resist so many princes, if they had leisure to unite their forces, he marched directly against Maurice, whom he dreaded the most, and hoped to crush him before he could receive support from his allies; though in that he was deceived, Maurice was ready to oppose him.

These hostile chiefs, whose armies were nearly equal in numbers, each consisting of 24,000 men, met at Siverhausen, in the duchy of Lunenburg. There an obstinate battle was fought, in which the combat long remained doubtful, each gaining ground upon the other alternately; but, at last, victory declared for Maurice, who was superior in cavalry. Albert's army fled in confusion, leaving 4,000 men dead on the field, and their baggage and artillery in the hands of the enemy. But the allies bought the victory dear. Their best troops suffered greatly; several persons of distinction fell; and Maurice himself received a wound of which he died two days after, in the 32nd year of his age. No prince, antient or modern, ever, perhaps, discovered such deep political sagacity at so early a period of life. As he left only one daughter, afterwards married to the famous William, prince of Orange, John Frederic, the degraded elector, claimed the electoral dignity, and that part of his patrimonial estate of which he had been stripped during the Smalkaldic; but the states of Saxony, forgetting the merits and sufferings of their former master, declared in favour of Augustus, Maurice's brother. The unfortunate, but magnanimous, John Frederic, died soon after this disappointment, which he bore with his usual firmness; and the electoral dignity is still possessed by the descendants of Augustus.

The consternation which Maurice's death occasioned among his troops, prevented them from making a proper use of their victory; so that Albert, having re-assembled his

broken forces, and made fresh levies, renewed his depredations with additional fury. But, being defeated in a second battle, scarce less bloody than the former, by Henry of Brunswick, who had taken the command of the allied army, he was driven from all his hereditary dominions, as well as from those he had usurped; he was laid under the ban of the empire, and obliged to take refuge in France, where he lingered out a few years in an indigent and dependant state of exile.

During the years 1554 and 1555, war raged in Italy and the Low Countries, accompanied with all its train of miseries, and all the crimes to which ambition gives birth; but Germany enjoyed such profound tranquillity, as afforded the diet full leisure to confirm and perfect the plan of religious pacification agreed upon at Passau, and referred to the consideration of the next meeting of the Germanic body. For this purpose, a diet had been summoned to meet at Augsburg, soon after the conclusion of the treaty: but the commotions excited by Albert of Brandenburg, and the attention which Ferdinand was obliged to pay to the affairs of Hungary, had hitherto obstructed its deliberations. The following stipulations were at last settled, and formally published; namely, "That such princes and cities as have declared their approbation of the confession of Augsburg, should be permitted to profess and exercise, without molestation, the doctrine and worship which it authorises; that the popish ecclesiastics shall claim no spiritual jurisdiction in such cities or principalities, nor shall the protestants molest the princes and states that adhere to the church of Rome; that no attempt shall be made for the future toward terminating religious differences, except by the gentle and pacific methods of persuasion and conference: that the supreme civil power, in every state, may establish what form and doctrine of worship it shall deem proper; but shall permit those who refuse to conform, to remove their effects; that such as had seized the benefices or revenues of the church, previous to the treaty of Passau, shall retain possession of them, and be subject to no prosecution in the imperial chamber on that account; but if any prelate or ecclesiastic shall hereafter abandon the Romish religion, he shall instantly relinquish his diocese or benefice, and that it shall be lawful for those in whom the right of nomination is vested, to proceed immediately to an election, as if the office was vacant by death or translation."

These are the principal articles in the famous recess of Augsburg, which is the basis of religious peace in Germany. The followers of Luther were highly pleased with that security which it afforded them, and the catholics seem to have had no less reason to be satisfied. That article which preserved entire to the Romish church the benefices of such ecclesiastics as should hereafter renounce its doctrines, at once placed a hedge around its patrimony, and effectually guarded against the defection of its dignitaries. But cardinal Caraffa, who was now raised to the papal throne, under the name of Paul IV. full of high ideas of his apostolic jurisdiction, and animated with the fiercest zeal against heresy, regarded the indulgence given to the protestants, by an assembly composed of laymen, as an impious act of that power which the diet had usurped. He therefore threatened the emperor and the king of the Romans with the severest effects of his vengeance, if they did not immediately declare the recess of Augsburg illegal and void.

and as Charles shewed no disposition to comply with this demand, the pope entered into an alliance with the French king, in order to ruin the imperial power in Italy.

During the negotiation of that treaty, an event happened, which astonished all Europe, and confounded the reasonings of the wisest politicians. The emperor Charles V. though no more than 56, an age when objects of ambition operate with full force on the mind, and are generally pursued with the greatest ardour, had, for some time, formed the resolution of resigning his hereditary dominions to his son Philip. He now determined to put it in execution. Various have been the opinions of historians concerning a resolution so singular and unexpected; but the most probable seem to be, the disappointments which he had met with in his ambitious hopes, and the decline of his health. He had, early in life, been attacked with the gout; and the fits were now become so frequent and severe, that not only the vigour of his constitution was broken, but the faculties of his mind were. sensibly impaired. He, therefore, judged it more decent to conceal his infirmities in some solitude, than to expose them any longer to the public eye: and as he was unwilling to forfeit the fame, or lose the acquisitions of his better years, by attempting to guide the reins of government when he was no longer able to hold them with steadiness, he prudently determined to seek, in the tranquillity of retirement, that happiness, which he had in vain pursued amid the tumults of war and the intrigues of state.

In consequence of this resolution, Charles, who had already ceded to his son Philip the kingdom of Naples and the duchy of Milan, assembled the states of the Low Countries at Brussels; and, seating himself, for the last time, in the chair of state, he explained to his subjects the reasons of his resignation, and solemnly devolved his authority upon Philip. He recounted with dignity, but without ostentation, all the great things which he had undertaken and performed since the commencement of his administration; and the numeration gives us the highest idea of his activity and industry. "I have dedicated," observed he, "from the 17th year of my age, all my thoughts and attention to public objects, reserving no portion of my time for the indulgence of ease, and very little for the enjoyment of private pleasure. Either in a pacific or hostile manner, I have visited Germany nine times; Spain, six times; France, four times; Italy, seven times; the Low Countries, ten times; England, twice; Africa as often; and, while my health permitted me to discharge the duties of a sovereign, and the vigour of my constitution was equal in any degree to the arduous office of governing such extensive dominions, I never shunned labour, nor repined under fatigue; but now, when my health is broken, and my vigour exhausted, by the rage of an incurable distemper, my growing infirmities admonish me to retire; nor am I so fond of reigning, as to retain the sceptre in an impotent hand, which is no longer able to protect my subjects.

"Instead of a sovereign worn out with diseases," continued he, "and scarce half alive, I give you one in the prime of life, already accustomed to govern, and who adds to the vigour of youth, all the attention and sagacity of maturer years." Then, turning towards Philip, who fell on his knees and kissed his father's hand, "It is in your power," said Charles, "by a wise and virtuous administration, to justify the extraordinary

proof which I give this day of my paternal affection, and to demonstrate that you are worthy of the confidence which I repose in you. Preserve," added he, "an inviolable regard for religion : maintain the catholic faith in its purity ; let the laws of your country be sacred in your eyes ; encroach not on the rights of your people ; and if the time should ever come, when you should wish to enjoy the tranquillity of private life, may you have a son, to whom you can resign the sceptre with as much satisfaction as I give mine to you." A few weeks after, the emperor also resigned to Philip the Spanish crown, with all the dominions depending upon it, in the Old, as well as in the New World ; reserving nothing to himself, out of all those vast possessions, but an annual pension of 100,000 ducats.

Charles was now impatient to embark for Spain, where he had fixed on a place of retreat. But by the advice of his physicians, he put off his voyage for some months, on account of the severity of the season ; and, by yielding to their judgment, he had the satisfaction, before he left the Low Countries, of taking a considerable step towards a peace with France. This he ardently longed for ; not only on his son's account, whose administration he wished to commence in quietness, but that he might have the glory, when quitting the world, of restoring to Europe that tranquillity which his ambition had banished from it, almost since the day that he assumed the reins of government.

In 1558, while Philip and Henry were making advances toward a treaty, which restored tranquillity to Europe, Charles V. whose ambition had so long disturbed it, but who had been for some time dead to all such pursuits, ended his days in the monastery of St. Justus, in Estramadura, which he had chosen as the place of his retreat. It was seated in a valley of no great extent, watered by a small brook, and surrounded by rising grounds, covered with lofty trees. In this solitude, Charles lived on a plan that would have suited a private gentleman of moderate fortune. His table was plain, his domestics few, and his intercourse with them familiar. Sometimes he cultivated the plants in his garden with his own hands, sometimes rode out to the neighbouring wood on a little horse, the only one which he kept, attended by a single servant on foot : and when his infirmities deprived him of these more active recreations, he admitted a few gentlemen, who resided near the monastery, to visit him, and entertained them as equals ; or he employed himself in studying the principles, and in framing curious works of mechanism, of which he had always been remarkably fond, and to which his genius was peculiarly turned. But, however he was engaged, or whatever might be the state of his health, he always set apart a considerable portion of his time for religious exercises ; regularly attending divine service in the chapel of the monastery, morning and evening.

In this manner, not unbecoming a man perfectly disengaged from the affairs of the world, did Charles pass his time in retirement. But some months before his death, the gout, after a longer intermission than usual, returned with a proportional increase of violence, and enfeebled both his body and mind to such a degree, as to leave no traces of that sound and masculine understanding, which had distinguished him among his

cotemporaries. He sunk into a deep melancholy. An illiberal and timid superstition depressed his spirits. He lost all relish for amusements of every kind, and desired no other company but that of monks. With them, he chanted the hymns in the Missal, and conformed to all the rigours of monastic life, tearing his body with a whip, as an expiation for his sins! Not satisfied with these acts of mortification, and anxious to merit the favour of heaven by some new and singular instance of piety, he resolved to celebrate his own obsequies. His tomb was accordingly erected in the chapel of the monastery: his attendants walked thither in funeral procession. Charles followed them in his shroud. He was laid in his coffin, and the service of the dead was chanted over him; he, himself, joining in the prayers that were put up for the repose of his soul, and mingling his tears with those which his attendants shed, as if they had been celebrating a real funeral.

The fatiguing length of this ceremony, or the awful sentiments which it inspired, threw Charles into a fever, of which he died, in the 59th year of his age. His enterprizes speak his most eloquent panegyric, and his history forms his highest character. As no prince ever governed so extensive an empire, including his American dominions; none seem ever to have been endowed with a superior capacity for sway. His abilities as a statesman, and even as a general, were of the first class; and he possessed in the most eminent degree, along with indefatigable industry, the science which is of the greatest importance to a monarch, that of discerning the characters of men, and of adapting their talents to the various departments in which they are to be employed. But, unfortunately for the reputation of Charles, his insatiable ambition, which kept himself, his neighbours, and his subjects, in perpetual inquietude, not only frustrated the chief end of government, the felicity of the nations committed to his care, but obliged him to have recourse to low artifices, unbecoming his exalted station, and led him into such deviations from integrity, as were unworthy of a great prince. This insidious policy, in itself sufficiently detestable, was rendered still more odious by a comparison with the open and undesigning character of Francis I. and served by way of contrast, to turn on the French monarch a degree of admiration, to which neither his own talents nor his virtues as a sovereign seem to have entitled him.

Before Charles left the Low Countries, he made a second attempt to induce his brother Ferdinand to give up his title to the imperial throne to Philip II. and to accept the investiture of some provinces, either in Italy or the Netherlands, as an equivalent. But, finding Ferdinand inflexible on that point, he desisted finally from his scheme, and resigned to him the government of the empire. The electors made no hesitation in recognizing the king of the Romans, whom they put in possession of all the ensigns of the imperial dignity, as soon as the deed of resignation was presented to them; but Paul IV. whose lofty ideas of the papal prerogative neither experience nor disappointment could moderate, refused to confirm the choice of the diet. He pretended that it belonged alone to the pope, from whom, as vicegerent of Christ, the imperial power was derived, to nominate a person to the vacant throne; and this arrogance and obstinacy he main

tained during his whole pontificate. Ferdinand I. however, did not enjoy the less authority as emperor.

It is now necessary to contemplate the affairs of the north, from which quarter a storm soon after arose, that burst on the head of the Austrian family, and appeared likely to have laid all their greatness in ruins.

The union of Calmar, seemingly so well calculated for the tranquillity as well as security of the north, proved the source of much discontent, and of many barbarous wars. The national antipathy between the Swedes and Danes, now heightened by national jealousy, was with difficulty restrained by the vigorous administration of Margaret, whose partiality for the natives of Denmark, is said to have been but too evident; and under her successor, Eric, still more unjustly partial to the Danes, the Swedes openly revolted, choosing their grand marshal, Charles Canuteson, first regent, and afterwards king.

The Swedes, however, returned to their allegiance under Christian I. of Denmark. But they again revolted from the same province; again renewed the union of Calmar, under John, his successor; revolted a third time; and were finally subdued by the arms of Christian II. who reduced them to the condition of a conquered people.

The circumstances of this last revolution are sufficiently singular to merit our attention; and the consequences by which it was followed, render a recapitulation necessary.

The Swedes on revolting from Christian I. had conferred the administration of the kingdom on Steen Sture, whose son, of the same name, succeeded him in the regency. The authority of young Sture was acknowledged by the body of the nation, but disputed by Gustavus Trolle, archbishop of Upsal, and primate of Sweden, whose father had been a competitor for the administration, and whom Christian II. of Denmark had brought over to his interest. Besieged in his castle of Stecka, and obliged to surrender, notwithstanding the interposition of the Danish monarch, the archbishop was degraded by the diet, and deprived of all his benefices. In this distress, he applied to Leo X. who excommunicated the regent and his adherents, committing the execution of the bull to the king of Denmark. Pursuant to this decree, the Nero of the North, as Christian II. is deservedly called, invaded Sweden with a powerful army; but being worsted in a great battle, he pretended to treat, and offered to go in person to Stockholm, in order to confer with the regent, provided six hostages were sent as a pledge of his safety. The proposal was accepted, and six of the first nobility, among whom was Gustavus Vasa, grand-nephew to king Canuteson, were put on board the Danish fleet. These hostages Christian carried prisoners to Denmark. Next year he returned with a more formidable armament, and invaded West Gothland: where Steen Sture, advancing to give him battle, fell into an ambuscade, and received a wound which proved mortal. The Swedish army, left without a head, first retreated, and afterwards dispersed. The senate was divided about the choice of a new regent, and the conqueror allowed them no leisure to deliberate. He immediately marched toward the capital,

wasting every thing before him with fire and sword. Stockholm surrendered: and Gustavus Trolle, resuming his archiepiscopal function, crowned Christian king of Sweden.

This coronation was followed by one of the most tragical scenes in the history of the uman race. Christian affecting clemency, went to the cathedral, and swore that he would govern Sweden, not with the severe hand of a conqueror, but with the mild and beneficent disposition of a prince raised to the throne by the universal voice of the people; after which he invited the senators and grandees to a sumptuous entertainment, that lasted for three days. Meanwhile, a plot was formed for extirpating the Swedish nobility. On the last day of the feast, in order to afford some pretext for the intended massacre, archbishop Trolle reminded the king, that though his majesty, by a general amnesty, had pardoned all past offences, no satisfaction had yet been given to the pope, and demanded justice in the name of his holiness. The hall was immediately filled with armed men, who secured the guests; the primate proceeded against them as heretics; a scaffold was erected before the palace gate; and 94 persons of distinction, among whom was Eric Vasa, father of the celebrated Gustavus, were publicly executed for defending the liberties of their country. Other barbarities succeeded to these: the rage of the soldiery was let loose against the citizens, who were butchered without mercy; and the body of the late regent, it is said, was dug from the grave, exposed on a gibbet, quartered, and nailed up in different parts of the kingdom.

But Sweden soon found a deliverer and an avenger. Gustavus Vasa had escaped from his prison in Denmark, and concealed himself in the habit of a peasant among the mountains of Dalecarlia. There, deserted by his sole companion and guide, who carried off his little treasure; bewildered, destitute of every necessary, and ready to perish with hunger, he entered himself among the miners, and worked under-ground for bread, without relinquishing the hope of one day ascending the throne of Sweden. Again emerging to light, and distinguished among the Dalecarlians by his lofty mien, and by the strength and agility of his body, he had acquired a considerable degree of ascendancy over them, before they were acquainted with his rank. He made himself known to them at their annual feast, and exhorted them to assist him in recovering the liberties of their country. They listened to him with admiration: they were all rage against their oppressors; but they did not resolve to join him, till some of the old men among them observed (so inconsiderable often are the causes of the greatest events!) that the wind had blown directly from the north, from the moment Gustavus began to speak. This they considered as an infallible sign of the approbation of heaven, and an order to take up arms under the banners of the hero: they already saw the wreath of victory on his brow, and begged to be led against the enemy. Gustavus did not suffer their ardour to cool. He immediately attacked the governor of the province in his castle, took it by assault, and sacrificed the Danish garrison to the just vengeance of the Dalecarlians. Like animals that have tasted the blood of their prey, they were now furious, and fit for any desperate enterprize. Gustavus every where saw himself victorious, and gained partizans in all corners of the kingdom. Every thing yielded to his valour and

good fortune. His popularity daily increased. He was first chosen regent, and afterwards king of Sweden.

Meanwhile Christian II. become obnoxious by his tyrannies even to his Danish subjects, was degraded from his throne. The inhabitants of Jutland first renounced his authority. They deputed Munce, their chief justice, to signify to the tyrant the sentence of deposition. "My name," said Munce, glorying in the dangerous commission, "ought to be written over the gates of all wicked princes!" and it ought certainly to be transmitted to posterity, as a warning to both kings and inferior magistrates of the danger of abusing power. The whole kingdom of Denmark acquiesced in the decree; and Christian, hated even by his own officers, and not daring to trust any one, retired into the Low Countries, the hereditary dominions of his brother-in-law, Charles V. whose assistance he had long implored in vain.

Frederic, duke of Holstein, Christian's uncle, was elected king of Denmark and Norway. He aspired also to the sovereignty of Sweden; but finding Gustavus firmly seated on the throne of that kingdom, he laid aside his claim. Frederic afterwards entered into an alliance with Gustavus and the Hans towns, against the deposed king. Christian II. who, after several unsuccessful attempts to recover his crown, died in prison; a fate too gentle for so barbarous a tyrant.

Frederic was succeeded in the Danish throne by his son Christian III. one of the most prudent and prosperous princes of his age. He established the protestant religion, at the same time, in Denmark and Norway, in imitation of the example of Gustavus, who had already introduced it into Sweden. The doctrines of Luther had spread themselves over both kingdoms, and both princes saw the advantage of retrenching the exorbitant power of the clergy. Christian died in 1558, and Gustavus in 1560, leaving behind him the glorious character of a patriot king. He rescued Sweden from the Danish yoke, by his valour; he made commerce and arts flourish by his wise policy; and the liberality of his bold and independent spirit, by making him superior to vulgar prejudices, enabled him to break the fetters of priestly tyranny, and enfranchise the minds as well as the bodies of his countrymen.

Charles V. as we have already seen, was succeeded in the imperial throne by his brother Ferdinand I. the beginning of whose reign was distinguished by the diet of Ratisbon, which confirmed the peace of religion by reconciling the house of Hesse to that of Nassau.

Pius IV. was raised to the papacy in 1559, less obstinate than his predecessor, Paul, confirmed the imperial dignity to Ferdinand. He also issued a bull for re-assembling the council of Trent, the most memorable occurrence under the reign of this emperor.

On the publication of that bull, the protestant princes assembled at Naumburg, in Saxony, and came to a resolution of adhering to the confession of Augsburg, whatever should be determined in the council of Trent. Meanwhile Ferdinand issued orders for convoking a diet at Frankfort; where he managed matters with so much address, that his son Maximilian, already promoted to the throne of Bohemia, was elected king of the Romans, with the unanimous consent of the Germanic body. The emperor also

endeavoured, on this occasion, but in vain, to persuade the protestants to submit to the general council. They continued unshaken in their resolution of rejecting its decrees. The pope, they maintained, had no right to convoke such an assembly, that prerogative belonged to the emperor alone, to whom, as their sovereign, they were at all times willing to explain themselves on any subjects either civil or religious.

The emperor then addressed himself to the fathers of the council, entreating them to undertake the reformation of the popish clergy, to permit the cup to be given to the laity, and to allow of the marriage of priests throughout the imperial dominions. Both these requests were refused.

Soon after the dissolution of the council of Trent in 1563, died the emperor Ferdinand I. He was succeeded by his son Maximilian II. who, in the beginning of his reign, was obliged to engage in war against the Turks. Solyman II. whose valour and ambition had been so long terrible to Christendom, though unfit for the field, continued to make war by his generals. He had even projected, it is said, the conquest of the German empire. The affairs of Transylvania furnished him with a pretext for taking arms. John Sigismund, prince of that country, had assumed the title of king of Hungary, (which his mother had resigned, as we have seen, for some possessions in Silesia,) and put himself under the protection of the grand Seignior. Maximilian immediately sent an army against Sigismund, under the command of Lazarus Schuendi. The imperial general took Tokay, and would soon have reduced all Transylvania, had not Solyman dispatched an ambassador to the imperial court, to negotiate in behalf of his vassal. By this envoy, matters were seemingly accommodated. But Solyman had not laid aside his hostile intentions.

Having soon after invaded Hungary with a powerful army, he laid siege to Sigeth. This city is strongly situated in a marsh, above 15 miles to the north of the Drave, on the frontiers of Sclavonia, and was then the bulwark of Stiria against the Turks. It had a garrison of 2,300 men, under the brave count Zerini, who defended it long, with incredible valour, against the whole force of the sultan. Meanwhile, the emperor Maximilian lay in the neighbourhood, with an army not inferior to that of the besiegers, without daring to attempt its relief. At length, all the works being destroyed, and the magazine set on fire by the enemy, Zerini sallied out at the head of 300 chosen men, and died gallantly with his sword in his hand.

During the siege of Sigeth, before which the Turks lost 30,000 men, Solyman expired, in the 76th year of his age. But the emperor, being unacquainted with this circumstance, which was to be kept secret till after the reduction of the place, had retired toward the frontiers of Austria, as soon as informed of the fate of Zerini. Solyman was succeeded in the Ottoman throne by his son, Selim II. who began his reign with concluding a truce of 12 years with Maximilian.

In consequence of this truce, and the pacific disposition of the emperor, Germany long enjoyed repose, while all the neighbouring nations were disquieted by wars, either foreign or domestic.

Maximilian died while repairing to support his election to the kingdom of Poland;

and was succeeded in the imperial throne by his son, Rodolph II. a prince who inherited the pacific disposition of his father.

Rodolph II. succeeded to the imperial throne in 1576; and although more occupied about the heavens than the earth, (being devoted both to astronomy and astrology, which he studied under the famous Tycho Brahe,) the empire, during his long reign, enjoyed almost uninterrupted tranquillity. The equity of his administration compensated for its weakness. The chief disturbances which he met with proceeded from his brother Matthias. The Turks, as usual, had invaded Hungary: Matthias had been successful in opposing their progress; and a peace had been concluded in 1606, with sultan Achmet, successor of Mahomet III. The Hungarians thus relieved, became jealous of their religious rights, conferred their crown upon Matthias, their deliverer, who granted them full liberty of conscience, with every other privilege which they could desire. Matthias afterward became master of Austria and Moravia, on the same conditions: and the emperor Rodolph, in order to avoid the horrors of a civil war, confirmed to him these usurpations, together with the succession to the kingdom of Bohemia, where the Lutheran opinions had taken deep root.

In proportion as the reformed religion gained ground in Hungary and Bohemia, the protestant princes of the empire became desirous of securing and extending their privileges; and their demands being refused, they entered into a new confederacy, called the Evangelical Union. This association was opposed by another formed to protect the antient faith, under the name of the Catholic League. The succession to the duchies of Cleves and Juliers, roused to arms the heads of the two parties, who may be said to have slumbered since the peace of Passau.

John William, duke of Cleves, Juliers, and Berg, having died without issue, several competitors arose for the succession, and the most powerful prepared to support their title by the sword. In order to prevent the evils which must have been occasioned by such violent contests, as well as to support his own authority, the emperor cited all the claimants to appear before him, within a certain term, to explain the nature of their several pretensions. Meanwhile, he sequestered the fiefs in dispute, and sent his cousin Leopold, in quality of governor, to take possession of them, and to rule them in his name, till the right of inheritance should be settled. Alarmed at this step, John Sigismund, elector of Brandenburg, and the duke of Neuburg, two of the competitors, united against the emperor, whom they suspected of interested views, They were supported by the elector Palatine, and the other princes of the Evangelical Union, as the emperor was by the elector of Saxony, one of the claimants, and the princes of the Catholic League; and in order to be a match for their enemies, who were in alliance with the pope and the king of Spain, they applied to the king of France.

He was taking the most effectual measures to assist them, when that, with all his other designs, were rendered abortive by his death.

The two confederacies appeared to be dissolved with the death of Henry IV. But the elector of Brandenburg and the duke of Neuberg still maintained their claim to the succession of Cleves and Juliers; and being assisted by Maurice, prince of Orange,

and some French troops under the mareschal de la Chatre, they expelled Leopold, the sequestrator, and took possession by force of arms. They afterwards, however, disagreed between themselves, but were again reconciled from a sense of mutual interest. In this petty quarrel, Spain and the United Provinces interested themselves, and the two greatest generals in Europe were once more opposed to each other: Spinola on the part of the duke of Neuberg, who had renounced Lutheranism in order to procure the protection of the catholic king, and Maurice on the side of the elector of Brandenburg, who introduced Calvinism into his dominions more strongly to attach the Dutch to his cause.

Meantime, Rodolph II. died, and was succeeded by his brother Matthias. The protestants, to whom the archduke had been very indulgent, in order to accomplish his ambitious views, no sooner saw him seated on the imperial throne, than they plied him with memorials, requiring an extension of their privileges, while the catholics petitioned for new restrictions; and to complete his confusion, the Turks entered Transylvania. But the extent of the Ottoman dominions, which had so long given an alarm to Christendom, on this, as well as on former occasions, proved its safety. The young and ambitious Achmet, who hoped to signalize the beginning of his reign by the conquest of Hungary, was obliged to recal his forces from that quarter, to protect the eastern frontier of his empire; and Matthias obtained, without striking a blow, a peace as advantageous as he could have expected, after the most successful war. He stipulated for the restitution of Agria, Pest, Buda, and every other place held by the Turks in Hungary.

Matthias was now resolved to pull off the mask, which he had so long worn on purpose to deceive the protestants, and to convince them that he was their master. Meanwhile, finding himself advancing in years, and declining in health, he procured, in order to strengthen his authority, his cousin Ferdinand de Gratz, duke of Stiria, whom he intended as his successor in the empire, to be elected king of Bohemia and acknowledged in Hungary; neither himself nor his brethren having any children: and he engaged the Spanish branch of the house of Austria to renounce all pretensions which it could possibly have to those crowns.

This family compact alarmed the Evangelical Union, and occasioned a revolt of the Hungarians and Bohemians. The malcontents in Hungary were soon appeased; but the Bohemian protestants, whose privileges had been invaded, obstinately continuing in arms, were joined by those of Silesia, Moravia, and Upper Austria. The confederates were headed by count de la Tour, a man of abilities, and supported by an army of German protestants, under the famous count Mansfeldt, natural son of the Flemish general of that name, who was for a time governor of the Spanish Netherlands.

Thus was kindled a furious civil war, which desolated Germany during 30 years, interested all the powers of Europe, and was not finally extinguished until the peace of Westphalia.

Amid these disorders died the emperor Matthias, without being able to foresee the event or the struggle, or who should be his successor. The imperial dignity, however

went according to his destination. Ferdinand de Gratz was raised to the vacant throne, notwithstanding the opposition of the elector Palatine and the state of Bohemia; and with a less tyrannical disposition he would have been worthy that high station.

The election of Ferdinand II. instead of intimidating the Bohemians, roused them to more vigorous measures. They formally deposed him, and chose Frederic V. elector Palatine for their king. Frederic, seduced by his flatterers, unwisely accepted of the crown, notwithstanding the remonstrances of James I. of England, his father-in-law, who used all his influence in persuading him to reject it, and protested that he would give him no assistance in such a rash undertaking.

This measure confirmed the great quarrel between Ferdinand and the Bohemians. Frederic was seconded by all the protestant princes, except the elector of Saxony, who still adhered to the emperor, in hopes of obtaining the investiture of Cleves and Juliers. Bethlem Gabor, vaivode of Transylvania, also declared in favour of the Palatine; entered Hungary, made himself master of many places, and was proclaimed king by the protestants of that country.

Frederic was farther supported by 2,400 English volunteers, whom James permitted to embark in a cause of which he disapproved; and by a body of 8000 men, under prince Henry of Nassau, from the United Provinces. But Ferdinand, assisted by the catholic princes of the empire, by the king of Spain, and the archduke Albert, was more than a match for his enemies. Spinola led 25,000 veterans from the Low Countries, and plundered the Palatinate, in defiance of the English and Dutch; while Frederic himself, unable to protect his new kingdom of Bohemia, was totally routed near Prague, by the imperial general Buquoy, and his own catholic kinsman, the duke of Bavaria.

The Palatine and his adherents were now put to the ban of the empire; and the Bohemian rebels being reduced, an army was dispatched under Buquoy into Hungary against Bethlem Gabor, who consented to resign his title to that crown, on obtaning conditions otherwise advantageous. In the mean time, the conquest of the Palatinate was finished by the imperialists under count Tilly. Frederic was degraded from his electoral dignity, which was conferred on the duke of Bavaria; and his dominions were bestowed by Ferdinand, "in the fulness of his power," upon those who had helped to subdue them.

For many years Ferdinand II. continued to carry every thing before him in Germany. The king of Denmark, and the league of Lower Saxony, who maintained the quarrel of the Evangelical Union, were unable to withstand the imperial armies under Tilly and Walstein. After repeated defeats and losses, the Danish monarch was obliged to sue for peace: and the emperor found himself at length possessed of absolute authority.

He was disposed to exert that authority to the utmost; and so oppressed the protestants, as to oblige them to invite the assistance of Gustavus Adolphus, king of Sweden. We must now, therefore, take a retrospect of the northern kingdoms.

Eric, the son of Gustavus Vasa, proving a dissolute and cruel prince, was dethroned

and imprisoned by the states of Sweden in 1568. He was succeeded by his brother John; who, after attempting in vain to re-establish the catholic religion, died in 1592, and left the crown to his son Sigismund, already elected king of Poland.

Sigismund, like his father, was a zealous catholic, and the Swedes no less zealous Lutherans, they deposed him in the year 1600, and raised to the sovereignty his uncle, Charles IX. who had been chiefly instrumental in preserving their religious liberties.

The Poles attempted in vain to restore Sigismund to the throne of Sweden. Charles swayed the sceptre till his death, which happened in 1611. He was succeeded by his son, Gustavus Adolphus.

Denmark affords little that merits our attention during the reign of Frederic II. who succeeded his father, Christian III. in 1558; nor during the reign of his son and successor, Christian IV. before he was chosen general of the league in Lower Saxony. His transactions, even while vested with that command, are too unimportant to merit a particular detail. The issue has been already related.

No sooner was Gustavus seated on the throne, though only 18 years of age at his accession, than he signalized himself by his exploits against the Danes, the antient enemies of his crown. Profiting afterwards by a peace, which he had found necessary, he applied himself to the study of civil affairs; and by a wise and vigorous administration, supported with salutary laws, he reformed many public abuses, and gave order, prosperity, and weight, to the state. In a war against Russia, he subdued almost all Finland, and secured to himself the possession of his conquests by a treaty. His cousin Sigismund, king of Poland, treating him as an usurper, and refusing peace, when offered by Gustavus, he over-ran Livonia, Prussia, and Luthuania. An advantageous truce of six years, concluded with Poland, in 1629, gave him leisure to take part in the affairs in Germany, and exhibit more fully those heroic qualities, which will ever be the admiration of mankind.

Gustavus had many reasons for making war against the emperor. Ferdinand had assisted his enemy, the king of Poland; he treated the Swedish ambassador with disrespect; and he had formed a project of extending his dominion over the Baltic. If the king of Sweden looked tamely on, till the German princes were finally subjected, the independency of the Gothic monarchy, as well as that of the other northern kingdoms, would be in danger.

But the motives which chiefly induced Gustavus to take arms against the head of the empire, were the love of glory, and zeal for the protestant religion These, however, did not transport him beyond the bounds of prudence. He laid his designs before the states of Sweden; and he negotiated with France, England, and Holland, before he began his march. Charles I. still desirous of the restoration of the Palatine, agreed to send the king of Sweden 6000 men. The troops were raised in the name of the marquis of Hamilton, and supposed to be maintained by that nobleman, that the appearance of neutrality might be preserved. The people were more forward than the king. The flower of Gustavus's army, and many of his best officers, by the time he entered Germany, consisted of Scottish and English adventurers, who thronged over to sup-

port the protestant cause, and to seek renown under the champion of their religion ; so that the conquests, even of this illustrious hero, may partly be ascribed to British valour and British sagacity.

The most necessary supply, however, that Gustavus received, was an annual subsidy from cardinal Richelieu, of 1,200,000 livres ; a small sum in our days, but considerable at that time, especially in that country where the precious metals are still scarce. The treaty between France and Sweden is a master-piece in politics. Gustavus agreed in consideration of the stipulated subsidy, to maintain in Germany an army of 36,000 men ; bound himself to observe a strict neutrality toward the duke of Bavaria, and all the princes of the catholic league, on condition that they should not join the emperor against the Swedes ; and to preserve the rights of the Romish church, wherever he should find it established. By these ingenious stipulations, which did so much honour to the genius of Richelieu, the catholic princes were not only freed from all alarm on the score of religion, but furnished with a pretext for with-holding their assistance from the emperor, as a step which would expose them to the arms of Sweden.

Gustavus had entered Pomerania when the treaty was concluded, and soon after made himself master of Frankfort upon the Oder, Colberg, and several other important places. The protestant princes, however, were still backward in declaring themselves, lest they should be separately crushed by the imperial power; before the king of Sweden could march to their assistance. In order to put an end to this irresolution, Gustavus summoned the elector of Brandenburg to declare himself openly in three days ; and on receiving an evasive answer, he marched directly to Berlin. This spirited conduct had the desired effect: the gates were thrown open, and Gustavus was received as a friend.

He was soon after joined by the landgrave of Hesse, and elector of Saxony ; who, being persecuted by the catholic league, put themselves under his protection. Gustavus now marched towards Leipsic, where Tilly lay encamped. That experienced general advanced into the plain of Breitenfeld to meet his antagonist, at the head of 30,000 veterans. The king of Sweden's army consisted nearly of an equal number of men ; but the Saxon auxilaries being raw and undisciplined, fled at the first onset ; yet did Gustavus, by his superior conduct, and the superior prowess of the Swedes, gain a complete victory over Tilly and the imperialists.

This blow threw Ferdinand into the utmost consternation ; and if the king of Sweden had marched directly to Vienna, it is supposed he could have made himself master of that capital. But it is impossible for human foresight to discern all the advantages that may be reaped from a great and singular stroke of good fortune. Hannibal wasted his time at Capua, after the battle of Cannæ, when he might have led his victorious army to Rome ; and Gustavus Adolphus, instead of besieging Vienna or laying waste the emperor's hereditary dominions, took a different rout, and had the satisfaction of erecting a column on the opposite bank of the Rhine, in order to perpetuate the progress of his arms.

The consequences of the battle of Leipsic, however, were great. Nor did Gustavus

fail to improve that victory which he had so gloriously earned. He was instantly joined by all the members of the Evangelical Union, whom his success had inspired with courage. The measures of the Catholic League were utterly disconcerted; and the king of Sweden made himself master of the whole country from the Elbe to the Rhine, comprehending a space of near 100 leagues, full of fortified towns.

The elector of Saxony, in the mean time, entered Bohemia and took Prague. Count Tilly was killed in disputing with the Swedes the passage of the Lech: and Gustavus, who, by that passage, gained immortal honour, soon after reduced Augsburg, and there re-established the protestant religion. He next marched into Bavaria, where he found the gates of almost every city thrown open on his approach. He entered the capital in triumph, had there an opportunity of displaying the liberality of his mind. When pressed to revenge on Munich the cruelties (too horrid to be described) which Tilly had perpetrated at Magdeburg; to give up the city to pillage, and reduce the elector's magnificent palace to ashes, "No!" replied he, "let us not imitate the barbarity of the Goths, our ancestors, who have rendered their memory detestable by abusing the rights of conquests; in doing violence to humanity, and destroying the precious monuments of art."

During these transactions, the renowned Walstein, who had been for a time in disgrace, but was restored to the chief command with unlimited powers, soon after the defeat at Leipsic, had recovered Prague, and the greater part of Bohemia. Gustavus offered him battle near Nuremburg; but that cautious veteran prudently declined the challenge; and the king of Sweden was repulsed in attempting to force his entrenchments. The action lasted for ten hours, during which every regiment in the Swedish army, not excepting the body of reserve, was led on to the attack.

The king's person was in imminent danger; the Austrian cavalry sallying out furiously from their entrenchments on the right and left; when the efforts of the Swedes began to slacken, and a masterly retreat only could have saved him from a total overthrow. That service was partly performed by an old Scotch colonel of the Hepburn, who had resigned his commission in disgust, but was present at this assault. To him Gustavus applied in his distress, seeing no officer of equal experience at hand, and trusting to the colonel's natural generosity of spirit. He was not deceived. Hepburn's pride overcame his resentment. "This," said he, (and persevered in his resolution) "is the last time that ever I will serve so ungrateful a prince!" Elated with the opportunity that was offered him of gathering fresh laurels, and of exalting himself in the eye of a master by whom he thought himself injured, he rushed into the thickest of the battle; delivered the orders of the king of Sweden to his army, and conducted the retreat with so much order and ability, that the imperialists durst not give him the smallest disturbance.

This severe check, and happy escape from almost inevitable ruin, ought surely to have moderated the ardour of Gustavus. But it had not sufficiently that effect. In marching to the assistance of the elector of Saxony, he again gave battle to Walstein, with an inferior force, in the wide plain of Luthzen, and lost his life in a hot engage-

ment, which terminated in the defeat of the imperial army. That engagement was attended with circumstances sufficiently memorable to merit a particular detail.

Soon after the king of Sweden arrived at Naumburg, he learned that Walstein had moved his camp from Weissensels to Lutzen ; and although that movement freed him from all necessity of fighting, as it left open his way into Saxony by Degaw, he was keenly stimulated with an appetite for giving battle. He accordingly convened, in his own apartment, his two favourite generals, Bernard, duke of Saxe Weymar, and Kniphausen, and desired them to give their opinions freely, and without reserve, in regard to the eligibility of such a measure. The youthful and ardent spirit of the duke, congenial to that of the king, instantly caught fire, and he declared in favour of an engagement. But the courage of Kniphausen, matured by reflection and chastized by experience, made him steadily and uniformly oppose the hazarding an action at that juncture, as contrary to the true principles of the military science. "No commander," said he, "ought to encounter an enemy greatly superior to him in strength, unless compelled so to do by some pressing necessity. Now your majesty is neither circumscribed in place, nor in want of provisions, forage, or warlike stores."

Gustavus seemed to acquiesce in the opinions of this able and experienced general ; yet was he still greatly ambitious of a new trial at arms with Walstein. And no sooner was he informed, on his nearer approach, that the imperial army had received no alarm, nor the general any intelligence of his motions, than he declared his resolution of giving battle to the enemy.

That declaration was received with the strongest demonstrations of applause, and the most lively expressions of joy. At one moment the whole Swedish army made its evolutions, and pointed its course towards the imperial camp. No troops were ever known to advance with so much alacrity ; but their ardour was damped, and their vigour wasted, before they could reach their hostile antagonists. By a mistake in computing the distance, they had eight miles to march instead of five, and chiefly through fresh ploughed lands, the passage of which was difficult beyond description; the miry ground clinging to the feet and legs of the soldiers ; and reaching, in some places, almost as high as the knee.

Nor were these the only difficulties the Swedes had to encounter before they arrived at Lutzen. When they were within two miles of the spot, where they hoped a speedy termination of all their toils, they found a marshy swamp, formed by a stagnating brook, over which lay a paltry bridge, so narrow, that only two men could march over it abrest. In consequence of this new obstacle, it was sunset before the whole Swedish army could clear the pass ; and Walstein, having been by that time informed of the approach of Gustavus, was employed in fortifying his camp, and in taking every other measure for his own safety and the destruction of his enemy that military skill could suggest.

The situation of the king of Sweden was now indeed truly perilous. He saw himself reduced to the necessity of giving battle under the most adverse circumstances; or of running the hazard of being routed in attempting a retreat with the troops fatigued and

almost fainting for want of food. Yet was a retreat thought expedient by some of his generals. But Gustavus, in a tone of decision, thus silenced their arguments; " I cannot bear to see Walstein under my beard, without making some animadversions upon him, I long to un-earth him," added he, " and to behold with my own eyes how he can acquit himself in the open field."

Conformable to these sentiments, the king of Sweden came to a fixed resolution of giving battle to the imperial army next morning, and of beginning the action two hours before day. But the extreme darkness of the night rendered the execution of the latter part of his plan impracticable; and when morning began to dawn, and the sun to dispel the thick fog that had obscured the sky, an unexpected obstacle presented itself. Across the line, on which the Swedish left wing proposed to advance, was cut a deep ditch too difficult for the troops to pass; so that the king was obliged to make his whole army move to the right, in order to occupy the ground which lay between that ditch and Walstein's camp.

This movement was not made without some trouble, and a considerable loss of time. Having at length completed it, between eight and nine in the morning, Gustavus ordered two hymns to be sung; and riding along the lines with a commanding air, he thus harangued his Swedish troops. " My companions and friends! shew the world this day what you really are. Acquit yourselves like disciplined men, who have seen and been engaged in service; observe your orders, and behave intrepidly, for your own sakes as well as for mine. If you so respect yourselves, you will find the blessing of heaven on the point of your swords, and reap deathless honour, the sure and inestimable reward of valour. But if, on the contrary, you give way to fear, and seek self-preservation in flight, then infamy is as certainly your portion, as my disgrace and your destruction will be the consequence of such a conduct."

The king of Sweden next addressed his German allies, who chiefly composed the second line of his army; lowering a little the tone of his voice, and relaxing his air of authority: " Friends, officers, and fellow soldiers," said he, " let me conjure you to behave valiantly this day. You shall fight not only under me, but with me. My blood shall mark the path you ought to pursue. Keep firmly, therefore, within your ranks, and second your leader with courage. If you so act, victory is ours, together with all its advantages, which you and your posterity shall not fail to enjoy. But if you give ground, or fall into disorder, your lives and liberties will become a sacrifice to the enemy."

On the conclusion of these two emphatical speeches, one universal shout of applause saluted the ears of Gustavus. Having disposed his army in order of battle, that warlike monarch now took upon himself, according to custom, the particular command of the right wing; and drew his sword about nine in the morning, being attended by the duke of Saxe Lauenburg, Crailsham, grand master of his household, a body of English and Scotch gentlemen, and a few domestics. The action soon became general, and was maintained with great obstinacy on both sides. But the veteran Swedish brigades of the first line, though the finest troops in the world, and esteemed invincible,

found the passing of certain ditches, which Walstein had ordered to be hollowed and lined with musqueteers, so exceedingly perplexing and difficult, that their ardour began to abate, and they seemed to pause, when their heroic prince flew to the dangerous station; and dismounting, snatched a partizan from one of the officers, and said in an austere tone, accompanied with a stern look,

"If, after having passed so many rivers, scaled the walls of numberless fortresses, and conquered in various battles, your native intrepidity hath at last deserted you, stand firm at least for a few seconds. Have yet the courage to behold your master die, in a manner worthy of himself!"—And he offered to cross the ditch.

"Stop Sire! for the sake of heaven," cried all the soldiers; "spare that invaluable life! Distrust us not, and the business shall be done."

Satisfied, after such an assurance, that his brave brigades in the centre would not deceive him, Gustavus returned to the head of the right wing, where his presence was much wanted; and making his horse spring boldly across the last ditch, set an example of gallantry to his officers and soldiers, which they thought themselves bound to imitate.

Having cast his eyes over the enemy's left wing that opposed him, as soon as he found himself on the farther side of the fosse, and seen there three squadrons of imperial cuirassiers, completely clothed in iron, the king of Sweden called colonel Stalhaus to him, and said, "Stalhaus! charge home these black fellows; for they are the men that will otherwise undo us."

Stalhaus executed the orders of his royal master with great intrepidity and effect. But in the mean time, about 11 o'clock, Gustavus lost his life. He was then fighting sword in hand, at the head of the Smaland cavalry, which closed the right flank of the centre of his army, and is supposed to have outstripped, in his ardour, the invincible brigades that composed his main body. The Swedes fought like roused lions, in order to revenge the death of their king: many and vigorous were their struggles: and the approach of night alone prevented Kniphausen and the duke of Saxe Weymar from gaining a decisive victory.

During nine hours did the battle rage with inexpressible fierceness. No field was ever disputed with more obstinacy than the plain of Lutzen; where the Swedish infantry not only maintained their ground against a brave and greatly superior army, but broke its force, and almost completed its destruction. Nor could the flight of the Saxons, or the arrival of Pappenheim, one of the ablest generals in the imperial service, with a reinforcement of 7000 fresh troops, shake the unconquerable fortitude of the Swedes. The gallant death of that great man, served but to crown their glory, and immortalize their triumph. "Tell Walstein," said he, presuming on the consequences that would result from the death of the Swedish monarch, "that I have preserved the catholic religion, and made the emperor a free man!" The death of Gustavus deserves more particular notice.

The king of Sweden first received a ball in his left arm. This wound he either felt not, or disregarded for a time, still pressing on with intrepid valour. Yet the soldiers

perceived their leader to be wounded, and expressed their sorrow on that account; "Courage, my comrades!" cried he, "the hurt is nothing; let us resume our ardour, and maintain the charge." At length, however, perceiving his voice and strength to fail him, he desired his cousin, the duke of Saxe Lauenburg, to convey him to some place of safety.

In that instant, as the warlike king's brave associates were preparing to conduct him out of the scene of action, an imperial cavalier advanced, unobserved, and crying aloud, "Long have I sought thee!" transpierced Gustavus through the body with a pistol ball. But this bold champion did not long enjoy the glory of his daring exploit: for the duke of Saxe Lauenburg's master of the horse, shot him dead, with the vaunting words recent on his lips.

Piccolomini's cuirassiers now made a furious attack upon the king of Sweden's companions. Gustavus was held up on his saddle for some time; but his horse, having received a wound in the shoulder, made a furious plunge, and flung the rider to the earth. His majesty's military followers were soon after utterly dispersed, but his personal attendants remained with him. His two faithful grooms, though mortally wounded, threw themselves over their master's body, and one gentleman of the bed-chamber, who lay on the ground, having cried out, in order to save his sovereign's life, that he was king of Sweden, was instantly stabbed to the heart by an imperial cuirassier.

Gustavus being afterwards asked who he was, replied with heroic firmness and magnanimity, "I am the king of Sweden! and seal, with my blood, the protestant religion, and the liberties of Germany." The imperialists gave him five barbarous wounds, and a bullet passed through his head, yet had he strength left to exclaim, "My God! my God!" His body was recovered by Stalhaus, in spite of the most vigorous efforts of Piccolomini, who strove to carry it off.

No prince, antient or modern, seems to have possessed, in so eminent a degree as Gustavus Adolphus, the united qualities of the hero, the statesman, and the commander; that intuitive genius which conceives, that wisdom which plans, and that happy combination of courage and conduct which gives success to an enterprize. Nor was the military progress of any leader ever equally rapid, under circumstances equally difficult; with an inferior force, against warlike nations, and disciplined troops, commanded by able and experienced generals. His greatest fault, as a king and a commander, was an excess of valour. He usually appeared in the front of the battle, mounted on a horse of particular colour; which, with his large and majestic stature, surpassing that of every other Swede, made him known both to friends and foes.

But Gustavus had other qualities beside those of the military and political kind. He was a pious christian, a warm friend, a tender husband, a dutiful son, an affectionate father. And the sentiments suited to all these softer characters are admirably displayed in a letter from the Swedish monarch to his minister, Oxenstiern, written a few days before the battle of Lutzen. "Though the cause in which I am engaged," said he, "is just and good, yet the event of war, because of the vicissitudes of human affairs, must ever be deemed doubtful. Uncertain, also, is the duration of mortal life;

I therefore require and beseech you, in the name of our blessed Redeemer, to preserve your fortitude of spirit, though events should not proceed in perfect conformity to my wishes."

"Remember, likewise," continued Gustavus, "how I should comfort myself in regard to you, if, by divine permission, I might live till that period, when you shall have occasion for my assistance of any kind. Consider me as a man, the guardian of a kingdom, who has struggled with difficulties for twenty years, and passed through them with reputation, by the protection and mercy of heaven; as a man, who loved and honoured his relations; and who neglected life, riches, and happy days, for the preservation and glory of his country and faithful subjects; expecting no other recompence than to be declared, The prince who fulfilled the duties of that station which providence had assigned him in this world."

"They who survive me," added he, "for I, like others, must expect to feel the stroke of mortality, are, on my account, and, for many other reasons, real objects of your commiseration: they are of the tender and defenceless sex: a helpless mother, who wants a guide, and an infant daughter, who needs a protector! Natural affection forces these lines from the hand of a son and a parent."

The death of the king of Sweden presaged great alterations in the state of Europe. The elector Palatine, who was in hopes of being restored, not only to his hereditary dominions, but to the throne of Bohemia, died soon after of chagrin. The German protestants, now without a head, became divided into factions; the imperialists, though defeated, were transported with joy, and prepared to push the war with vigour; while the Swedes, though victorious, were overwhelmed with sorrow for the loss of their heroic prince, whose daughter and successor, Christina, was only six years of age. A council of regency, however, being appointed, and the management of the war in Germany committed to the chancellor Oxenstiern, a man of great political talents, the protestant confederacy again wore a formidable aspect. The alliance between France and Sweden was renewed, and hostilities were pushed with vigour and success, by the duke of Saxe Weymar, and the generals Bannier and Horn.

Notwithstanding these favourable appearances, the war became every day more burthensome and disagreeable, both to the Swedes and their German allies; and Oxenstiern, who hitherto successfully employed his genius in finding resources for the support of the common cause, saw it in danger of sinking, when an unexpected event gave new hopes to the confederates. The emperor, become jealous of the vast power he had granted to Walstein, whose insolence and ambition knew no bounds, resolved to deprive him of the command; and Walstein, in order to prevent his disgrace, is said to have concerted the means of a revolt. It is at least certain, that he attempted to secure himself by winning the attachment of his soldiers; and Ferdinand, afraid of the delay of a legal trial, or having no proof of his treason, and dreading his resentmeut, had recourse to the dishonourable expedient of assassination.

But the fall of this great man, who had chiefly obstructed the progress of the Swedish arms, both before and since the death of Gustavus, was not followed by all those ad-

vantages which the confederates expected from it. The imperialists, animated by the presence of the king of Hungary, the emperor's eldest son, who succeeded Walstein in the command of the army, made up in valour what their general wanted in experience. Twenty thousand Spanish and Italian troops arrived in Germany under the duke of Feria; and the cardinal Infant, the new governor of the Low Countries, likewise brought a reinforcement to the catholic cause: the duke of Lorrain, a soldier of fortune, joined the king of Hungary with 10,000 men; and the duke of Bavaria, whom the Swedes had deprived of the Palatinate, also found himself under the necessity of uniting his forces to those of the emperor.

Meanwhile, the Swedish generals, Bannier, Horn, and the duke of Saxe Weymar, maintained a superiority on the Oder, the Rhine, and the Danube; and the elector of Saxony in Bohemia and Lusatia. Horn and the duke of Saxe Weymar united their forces, in order to oppose the progress of the king of Hungary, who had already made himself master of Ratisbon. They came up with him near Nordlingen, where was fought one of the most obstinate and bloody battles recorded in history; and where the Swedes were totally routed, in spite of their most vigorous efforts. In vain did the duke of Saxe Weymar remind them of Leipsic and Lutzen: though a consummate general, he wanted that all-inspiring spirit of Gustavus, which communicated his own heroism to his troops, and made them irresistible, unless when opposed to insuperable bulwarks.

This defeat threw the members of the Evangelical Union into the utmost consternation and despair. They accused the Swedes, whom they had lately extolled as their deliverers, of all the calamities which they felt or dreaded; and the emperor, taking advantage of these discontents, and his own success, did not fail to divide the confederates yet more by negotiation. The elector of Saxony first deserted the alliance: and a treaty with the court of Vienna, to the following purport, was at length signed at Prague, by all the protestant princes, except the landgrave of Hesse Cassel.

"The protestants shall retain for ever the mediate ecclesiastical benefices which did not depend immediately upon the emperor, and were seized before the pacification of Passau; and they shall retain, for the space of 40 years, the immediate ecclesiastical benefices, though seized since the treaty of Passau, if actually enjoyed before the 12th of November, in the year 1627; the exercise of the protestant religion shall be freely permitted in all the dominions of the empire, except the kingdom of Bohemia, and the provinces belonging to the house of Austria; the duke of Bavaria shall be maintained in possession of the Palatinate, on condition of paying the jointure of Frederic's widow, and granting a proper subsistence to his son, when he shall return to his duty, and there shall be, between the emperor and the confederates of the Augsburg confession, who shall sign this treaty, a mutual restitution of every thing taken since the irruption of Gustavus into the empire."

In consequence of this pacification, almost the whole weight of the war devolved amongst the Swedes and the French, between whom a fresh treaty had been concluded.

by Richelieu and Oxenstiern ; and a French army marched into Germany, in order to support the duke of Saxe Weymar.

In 1636, a decisive battle was fought in Upper Germany, between the Swedes, under general Bannier, and the imperialists, commanded by the elector of Saxony. After watching the motions of each other for some time, they halted in the plains of Wislock, where both armies prepared for battle. The imperial camp was pitched on an eminence, and fortified with 14 redoubts, under which the troops stood ready to engage. Desirous of drawing the enemy from that advantageous post, Bannier ordered part of his cavalry to advance and skirmish. This feint having, in some measure, the intended effect, Bannier ordered colonel Gun, who commanded the right wing of the Swedes, to attack the enemy, and advanced himself at the head of five brigades to support that wing; while general Statens, with the left wing wheeled round the hill, in order to charge the imperialists in flank. These attacks were executed with such vigour, that the whole Austrian and Saxon infantry was broken or cut down. Five thousand men fell on the field or in the pursuit ; 7000 were taken, together with 30 pieces of cannon, 150 ensigns, and an incredible number of waggons.

The battle of Wislock, which restored the lustre of the Swedish arms, raised Bannier to the highest degree of military reputation, and gave a signal blow to the imperial power, was followed by the demise of Ferdinand II. He died at Vienna, in the 59th year of his age, and the 18th of his reign, and was succeeded in the imperial throne by his son, Ferdinand III. The accession of this prince made little alteration in the state of the war: for although the first year of the new reign was distinguished by no memorable enterprize, the greater part of it being wasted in fruitless negotiations, the next campaign was remarkably active and bloody ; as if the contending powers had only been resting themselves in order to renew, with more destructive rage, the work of death. The duke of Saxe Weymar, who had already fully revenged the injuries of his family upon the house of Austria, advanced to Rhinfeld early in the spring, and resolved to besiege it in form. It was accordingly invested ; but the defence was so obstinate, that, notwithstanding the utmost efforts of valour and military skill, the imperislists had time to come to its relief, under general Savelli and the famous John de Wert. Both armies were immediately ranged in order of battle, and Weymar's right wing fell with such fury upon the enemy's left, commanded by Wert in person, that it was quickly broken. The left wing of Weymar's army was not equally successful. On the contrary, it was repulsed ; but he collected his cavalry, and repeated the charge with such vigour, that the enemy must have been totally routed, had they not retired under cover of the shades of night. The battle was renewed next day, when the defeat of the imperialists was completed, and both their generals made prisoners, together with a great number of inferior officers.

The duke, after this victory, returned to the siege of Rhinfeld, to which he granted an honourable capitulation, in consideration of its gallant defence. Newburg, Rottelen, and Friberg, the capital of Brisgaw, were also reduced ; and the siege of Brisac

was undertaken, with the greatest confidence of success. Here the duke of Lorrain, and Goeutz, the imperial general, attempted to interrupt Weymar's career, by attacking his intrenchments, but without effect. They always found him upon his guard ; and Brisac was forced at last to surrender, after it had been reduced to such extremity by famine, that the governor was obliged to set a guard upon the burying places, in order to prevent the inhabitants from digging up and devouring the dead.

While the duke of Saxe Weymar thus triumphed over the imperialists in Alsace, the Swedish general Bannier prosecuted his conquests in Pomerania. After the victory obtained at Wislock, he reduced Gartz, Locts, Demmin, and Wolgast ; and, understanding that Galas had extended his army, he sent Stalans and Torstenson, two gallant officers, with a reconnoitering detachment, that surprised and cut in pieces two regiments of imperial horse. But Charles Lewis, prince Palatine, son of the expelled elector, who had assembled some troops, and burned with impatience to re-establish himself by the sword, was less fortunate in Westphalia. Count Hasfeld, the emperor's lieutenant-general, in that province, advanced against him with a powerful army, in order to raise the siege of Lemgau, the capital of the country of Lippe. Lewis, sensible that he was in no condition to defend his lines against such a force, retreated toward Minden ; but Hasfeld coming up with him in the valley of Astheim, an action ensued, in which victory continued long doubtful, but at last declared in favour of the imperialists. The Palatine's little army was almost cut off, his artillery was lost, and his brother Robert made prisoner.

In 1639 all the aspiring hopes of Bannier and the Swedes were suddenly blasted, by the immature death of Bernard, duke of Saxe Weymar. He began the campaign with the siege of Thau, which he ordered to be battered with red-hot bullets ; a mode of attack which threw the inhabitants into such consternation, that they surrendered almost instantly, though they had before baffled all the efforts of Guebriant, the French general. Bernard's character was now so high, and his army so formidable to the imperial throne, that Ferdinand made some secret attempts to detach him from the French interest. But instead of listening to such proposals, which he considered as insidious, or slackening his operations, he vigorously exerted himself in taking measures for passing the Rhine. While thus employed, he fell sick at Hunningen, whence he was transported by water to Newburg, and there expired in the 35th year of his age. He is supposed to have fallen a sacrifice to the jealousy and ambition of cardinal Richelieu, who was not only desirous of getting possession of Brisac, but afraid that his scheme of humbling the house of Austria might be defeated, if the duke of Saxe Weymar should close with the emperor's proposals. Puffendorf not only supports this opinion, but positively affirms, that the duke was taken off by poison, and that his body had all the marks of it.

The death of Weymar was no sooner known, than a violent contest arose who should possess his army. Endeavours were used by the Swedish agents in Germany, to engage the officers and soldiers to join general Bannier ; the emperor took every measure in his power to draw them into his service, and regain possession of the places which

the duke had conquered; and Charles Lewis, prince Palatine, the re-establishment of whose family had been the chief cause of the war, attempted to gain them through the influence of England and Holland. But cardinal Richelieu ordered Lewis to be arrested at Moulins, in his return from London, and carried prisoner to the castle of Vincennes, where he was confined till a treaty was concluded between France and the Weymarian officers. It was stipulated, That the troops of Bernard, duke of Saxe Weymar, should constitute a separate body, under the direction of the officers named in his will for that purpose; that the French king should keep this body always effective, by the payment of a certain annual sum for raising recruits; that he should continue to the principal officers the same appointments which they had enjoyed under the duke, furnish them with bread, ammunition, and all other necessaries of war, and ratify the several donations which Bernard had made to his officers and soldiers; that the troops should receive their orders from the duke of Longueville, through the medium of their own commanders, who should be summoned to all councils held for the service of the common cause; that the conquered places should be put into the hands of his most Christian majesty, who might at pleasure appoint governors for Brisac and Friburg; but that the garrisons should consist of an equal number of French and German soldiers; and that the governors of the other places be chosen from the Weymarian army.

In the year 1641, during the deliberations of the diet, which was then sitting at Ratisbon, the counts d'Avaux and Salvius, the plenipotentiaries of France and Sweden, were negotiating at Hamburg, the preliminaries of a general peace were signed at Lutzen, by one of Ferdinand's aulic counsellors. After certain difficulties had been removed, it was agreed by these celebrated statesmen, that a congress for a general peace should be held at Munster and Osnaburg, the garrisons of which should march out; that the inhabitants should be released from their oath of allegiance to either party, and observe a strict neutrality during the time of negotiation; that both cities should be guarded by their own burghers and soldiers, commanded by the magistrates, who should be accountable for the effects, persons, and attendants of the negotiators; that the two conferences should be considered as only one congress, and the roads between the two cities be safe for all goers and comers, together with the intermediate places, where the negotiators might think proper to confer with each other; that, in case the negotiation should be interrupted before a treaty could be concluded, Munster and Osnaburg should return to the same situation in which they were before the congress; but that the neutrality should be observed six weeks after the conferences were broken off: that all the safe-conducts on each side should be exchanged at Hamburg, through the mediation of the Danish ambassador, in the space of two months after the date of the agreement; that the emperor and king of Spain should grant safe-conducts to the ministers of France, Sweden, and their allies in Germany and elsewhere, and receive the same security from his most Christian majesty, and that Sweden should grant safe-conducts to the emperor's plenipotentiaries, as well as those of the electors of Mentz and Brandenburg. It was farther agreed, That France should treat at Munster, and Sweden at Osnaburg: and that

each crown should have a secretary where the other's plenipotentiary was, in order to communicate their mutual resolutions.

The emperor, for the present, refused to ratify this convention, which he said was prejudicial to his honour, as well as to the interests of the Germanic body; and certain unexpected events, fatal to the hopes of the confederates, confirmed him in his resolution of continuing the war.

Among these disastrous events may be reckoned the death of Bannier, who fell sick at Zickaw, in consequence of fatigue; and expired at Halberstadt, in the 41st year of his age, to the infinite loss, and inexpressible regret of his country, as well as her allies. Beside his knowledge in the art of war, which he had acquired under the great Gustavus, to whom he was scarcely inferior as a commander, he was distinguished by his moderation and humanity toward those whom he had vanquished. He always avoided the effusion of blood, as far as circumstances would admit: and, being robust, patient, indefatigable, and active, he was adored by the soldiery, whose toils and dangers he cheerfully shared.

In 1643, the eyes of all Europe were again turned towards the negotiations at Munster and Osnaburg. The plenipotentiaries named by the emperor were the count d'Aversperg, and the baron de Krane, with Henry, duke of Saxe Lauenburg, who was chief of the embassy. France deputed the count d'Avaux and de Servien, counsellor of state; Sweden, Salvius, assisted by a son of the celebrated chancellor Oxenstiern: and Spain, the marquis de Castel Roderigo and Diego de Saavreda. Deputies were also named by the other European powers interested in the negotiations. The Swedish garrison quitted Osnaburg; which, together with Munster, was, by the baron de Krane, released from the oath that the citizens had taken to the emperor; and the regencies of both cities swore that they would observe an exact neutrality, and protect the persons and effects of the negotiators.

In the midst of these advances towards peace, Torstenson was ordered by the court of Sweden to carry war into the duchy of Holstein; the regency being incensed against the king of Denmark, whom they accused of concealing all the hostile intentions of an enemy under the mask of a mediator. He had taken several Swedish vessels in the Sound, and refused to give satisfaction to the regency, which complained of these acts of hostility. It was therefore resolved, in a general assembly of the states of Sweden, to make reprisals. That resolution, however, was not publicly known till the moment that Torstenson invaded Holstein. In that duchy he reduced Oldislee, Kiel, and several other places of importance.

Christian IV. alarmed at this irruption, complained of it to Torstenson, as a palpable infringement of the treaty lately concluded between Denmark and Sweden But finding that the Swedish general, instead of paying any regard to such remonstrance, penetrated into Jutland, and made himself master of almost all the towns in that province, his Danish majesty had recourse to the emperor, who ordered Galas to march to his assistance in the depth of winter. The imperialists, though much retarded by the snow, which rendered the roads almost impassable, at length appeared on the frontiers

of Holstein; where a resolution was taken to starve the Swedes in Jutland, by occupying the defiles between Stockholm and Sleswick. This design, however, was rendered abortive by the vigilance of Torstenson, who marched toward Rendsburg with an intention to give Galas battle, in case he should dispute the passage; and as the imperialists did not think proper to give him the least molestation, he quitted Holstein, intercepted some of their convoys, and encamped near Ratzburg.

Meanwhile, France, finding the general negotiations disturbed by the war between Sweden and Denmark, sent M. de la Thuillerie to Copenhagen, in order to bring about an accommodation. His proposals, however, met with little attention, until the retreat of the imperialists, and an advantage gained by the Swedes over their northern neighbours at sea, made the Danish monarch more tractable. Despairing of being able to obtain fresh succours from the emperor, Christian now listened to the mediation of France. A treaty was accordingly concluded at Bromsboo, by which Sweden restored to Denmark all the towns that Torstenson had taken in Holstein, and Christian, on his part, ceded to Sweden, Jemptie, Halland, the island of Gothland, and the citadel and the town of Wisbie, with all the isles depending upon it. Beside this treaty, which enabled Sweden to act with all her forces against the house of Austria, Thuillerie concluded an alliance between France and Denmark, by which Christian agreed to yield no assistance, directly or indirectly, to the enemies of France, or those of her allies.

Till 1648, the negotiations at Munster and Osnaburg, had varied according to the vicissitudes of the war; but the French and Swedes being then decisively victorious, and having no other enemy in Germany but the emperor, all the rest being either subdued or in alliance with them, it only remained for Ferdinand to receive law from those powers. Other circumstances conspired to forward the treaty. Sweden was weary of the war, notwithstanding the great success of its arms, during 18 years of hostilities; and the young queen, Christina, so distinguished by her love for learning, was desirous of repose, that she might have leisure to pursue her favourite studies. The United Provinces, become jealous of France, had concluded, in 1647, a separate treaty with Spain; in which their independency was not only acknowledged, but the republic was declared a free and sovereign state, by the only power that had disputed it, at a vast expence of blood and treasure, with an obstinacy to which history affords no parallel, for the term of 80 years. France, therefore, was left to sustain the whole weight of the war against the Spanish branch of the house of Austria; and cardinal Mazarine, her prime minister, being at the same time threatened with an intestine war, became more moderate in his demands at the congress, as well as more sincerely disposed to promote the tranquillity of Germany.

In consequence of these favourable occurrences and corresponding views, the memorable Peace of Westphalia was signed at Munster on the 24th day of October, in the year 1648. As it is a fundamental law of the empire, and the basis of all subsequent treaties, it is necessary to state the substance of the principal articles of it.

In order to satisfy the different powers, the following important stipulations were

found necessary ; namely, That France shall possess the sovereignty of the three archbishoprics, Metz, Toul, and Verdun, the city of Pignerol, Brisac, and its dependencies, the territory of Suntgau, the landgraviates of Upper and Lower Alsace, and the right to keep a garrison in Philipsburg ; that to Sweden shall be granted, besides five millions of crowns, the archbishopric of Bremen and the bishopric of Verden secularised, Upper Pomerania, Stetin, the isle of Rugen, and the city of Wismar, in the duchy of Mecklenburg, all to be held as fiefs of the empire, with three votes at the diet ; that the elector of Brandenburg shall be reimbursed for the loss of Upper Pomerania, by the cession of the bishopric of Magdeburg secularized, and by having the bishopric of Halberstadt, Minden, and Camin declared secular principalities, with four votes at the diet; that the duke of Mecklenburg, as an equivalent for Wismar, shall have the bishoprics of Schwerin and Ratsburg erected, in like manner, into secular principalities ; that the electoral dignity, with the Upper Palatinate, shall remain with Maximilian, duke of Bavaria, and his descendants, as long as they shall produce male issue ; but that the Lower Palatinate shall be restored to Charles Lewis, son of the deposed elector, in whose favour shall be established an eighth electorate, to continue till the extinction of the house of Bavaria. All the other princes and states of the empire were re-established in their lands, rights, and prerogatives, which they enjoyed before the troubles of Bohemia, in 1619.

The republic of Switzerland was declared to be a sovereign state, exempt from the jurisdiction of the empire : and the long-disputed succession of Cleves and Juliers, with the restitution of Lorrain, was referred to arbitration.

The stipulations in regard to religion were no less accurate and comprehensive. The pacification of Passau was confirmed in its full extent ; and it was farther agreed, That the Calvinists shall enjoy the same privileges as the Lutherans ; that the imperial chamber should consist of 24 protestant members, and 26 catholics : that the emperor shall receive six protestants into his aulic council, and that an equal number of catholic and protestant deputies shall be chosen for the diet, except when it is convoked on a cause that concerns one of the two religions, in which case, all the deputies shall be protestants, if it respects the protestants ; and catholics, if it relates to the followers of the catholic faith.

CHAPTER VI.

GERMANY AND THE NORTH——*From the peace of Westphalia, to the present time.*

THAT tranquillity which the peace of Westphalia had restored to Germany, continued unmolested till the death of Ferdinand III. in 1657, when an interregnum of five months ensued, and the diet was violently agitated in regard to the choice of a successor. At last, however, his son Leopold was raised to the imperial throne; for although jealousies prevailed among some of the electors, on account of the ambition of the house of Austria, the greater number were convinced of the propriety of such a choice, in order to prevent more alarming dangers. While the Turks remained masters of Buda, the French in possession of Alsace, and the Swedes of Pomerania, a powerful emperor seemed necessary.

The first measure of Leopold's reign, was the finishing of an alliance which his father had began, with Poland and Denmark, in opposition to Sweden. But we shall have occasion to notice the events to which this alliance gave birth, in tracing the history of the northern kingdoms.

Sweden had been raised to the highest pitch of military reputation by the victories of Gustavus Adolphus, who was considered as the champion of the protestant cause; but who gratified his own ambition and love of glory, at the same time that he protected the liberties of Germany, which his immature death only perhaps prevented him from overturning. And his daughter Christina, no less ambitious of fame, though neither in the camp nor cabinet, immortalized her short reign by declaring herself the patroness of learning and the polite arts. She drew to her court Grotius, Vossius, Des Cartes, and other eminent men, whom she liberally rewarded. But her studies in general, were too antiquated and abstract, to give lustre to her character as a woman; and by occupying too much of her attention, they were injurious to her reputation as a queen. She acceded to the peace of Westphalia, from a desire of indulging her passion for study, rather than out of any regard to the happiness of Sweden or the repose of Europe. That peace lightened the cares of government; but they were still too weighty for Christina. "I think I see the Devil!" said she, "when my secretary enters with his dispatches."

In order to enable the queen to pursue her literary amusements, without disadvantage to the state, the senate of Sweden proposed that she should marry her cousin, Charles Gustavus, prince Palatine of Deux Ponts, for whom she had been designed from her infancy. But although this prince appears to have been a favourite, like our Elizabeth, she did not choose to give herself a master. She prevailed, however, with the states to declare Charles Gustavus her successor; a measure by which she kept

herself at liberty, secured the tranquillity of Sweden, and repressed the ambition of some great families, who might, in case of her death, otherwise have offered pretensions to the crown.

But the Swedes, among whom refinement had made little progress, but whose martial spirit was now at its height, and among whom policy was well understood, could not bear to see the daughter of the great Gustavus devote her time and her talents solely to the study of dead languages; to the disputes about vortices, innate ideas, and other unavailing speculations; to a taste for medals, statues, pictures, and public spectacles, in contempt of the nobler cares of royalty. And they were yet more displeased to find the resources of the kingdom exhausted, in what they considered as inglorious pursuits, and childish amusements.

An universal discontent arose, and Christina was again pressed to marry. The disgust occasioned by this importunity, first suggested to her the idea of quitting the throne. She accordingly signified her intention of resigning, in a letter to Charles Gustavus, and of surrendering her crown in full senate.

But Charles, trained in dissimulation, and fearing the queen had laid a snare for him, rejected her proposal, and prayed that God and Sweden might long preserve her majesty. Perhaps he flattered himself, that the senate would accept her resignation, and appoint him to the government, in recompence for his modesty; but he was deceived, if these were his expectations. The senate and the chief officers of state, headed by chancellor Oxenstiern, waited upon the queen. And whether Christina had a mind to alarm her discontented subjects, and establish herself more firmly upon the throne, by pretending to desert it, or whatever else might be her motives for resigning; in a word, whether having renounced the crown out of vanity, which dictated most of her actions, she was disposed to resume it out of caprice; she submitted, or pretended to submit, to the importunity of her subjects and successor and consented to reign on condition that she should be no more pressed to marry.

Finding it impossible, however, to reconcile her literary pursuits, or more properly, the love of ease, and her romantic turn of mind with the duties of her station, Christina finally resigned her crown in 1654; and Charles Gustavus ascended the throne of Sweden, under the name of Charles X. After despoiling the palace of every thing curious and valuable, she left her capital and her kingdom, as the abodes of ignorance and barbarism. She travelled through Germany in men's clothes; and having a design of fixing her residence at Rome, that she might have an opportunity of contemplating the precious remains of antiquity, she embraced the catholic religion at Brussels, and solemnly renounced Lutheranism at Inspruck. The catholics considered this conversion as a great triumph, and the protestants were not a little mortified at the defection of so celebrated a woman; but both without reason; for the queen of Sweden, who had an equal contempt for the peculiarities of the two religions, meant only to conform, in appearance, to the tenet of the people among whom she intended to live, in order to enjoy more agreeably the pleasures of social intercourse. Of this her letters afford sufficient evidence, to silence the cavillers of either party.

But Christina, like most sovereigns who have quitted a throne, in order to escape from the cares of royalty, found herself no less uneasy in private life; so true is it, that happiness depends on the mind, not on the condition. She soon discovered, that a queen without power was a very insignificant character in Italy, and is supposed to have repented of her resignation. But, however that may be, it is certain she became tired of her situation, and made two journeys into France, where she was received with much respect by the learned, whom she had pensioned and flattered, but with little attention by the polite, especially of her own sex. Her masculine air and libertine conversation, kept women of delicacy at a distance. Nor does she seem to have desired their acquaintance; for when, on her first appearance, some ladies were eager to pay their civilities to her, "What," said she, "makes these women so fond of me? Is it because I am so like a man?" The celebrated Ninon de l'Enclos, whose wit and beauty gave her the power of pleasing to the most advantage, and who was no less distinguished by the multiplicity of her amours, than the singularity of her manner of thinking, was the only woman in France whom Christina honoured with any particular mark of her esteem. She loved the free conversation of the men; or of women, who, like herself, were above vulgar restraints.

The modest women in France, however, repaid Christina's contempt with ridicule. And happy had it been for her character, had she never excited, in the mind of either sex, a more disagreeable emotion; but that was soon succeeded by those of detestation and horror. As if not only sovereignty, but despotism, had been attached to her person, in a fit of libidinous jealousy, she ordered Monaldeschi, her favourite, to be assassinated in the great gallery of Fountainbleau, and almost in her own presence. Yet the woman, who thus terminated an amour with murder, did not want her apologists among the learned: and this atrocious violation of the law of nature and nations, in an enlightened age, and in the heart of a civilized kingdom, was allowed to pass, not only without punishment, but without inquiry!

Christina found it necessary, however, to leave France, where she was now justly held in abhorrence. She therefore returned to Rome; where, under the wing of the vicar of Christ, the greatest criminals found shelter and consolation; and where the queen of Sweden, a dupe to vanity and caprice, spent the remainder of her life, in sensual indulgencies and literary conversations, with cardinal Azzolini, and other members of the sacred college; in admiring many things for which she had no taste, and in talking about more which she did not understand.

While Christina was thus rambling over Europe, and amusing herself in a manner as unworthy of her former character as of the daughter of the great Gustavus, her successor, Charles X. was indulging the martial spirit of the Swedes, by the conquest of Poland. This he accomplished after several signal victories, in which he discovered both courage and conduct. Warsaw, the capital, was obliged to surrender; and Casimir, the Polish king, took refuge in Silesia. But that conquest was of small advantage to Sweden. The Poles revolted, in violation of the most solemn oaths and engagements; and the Russians, the Danes, the elector of Brandenburg, and the emperor Leopold, assisted them in expelling their invaders

But the king of Sweden, though assailed by so many enemies, was not discouraged. Depending on the valour of his troops, he suddenly entered Denmark, then governed by Frederic III. and laid siege to Copenhagen; which must have surrendered, if it had not been relieved by a Dutch fleet. He made a second attack on the same capital the year following, though without success; and the ardour of his spirit being still unabated, he was taking measures to push the war with redoubled vigour against all his enemies, when he was carried off by an epidemical fever that raged in his camp.

As the son of this warlike and ambitious monarch was yet a minor, peace now became necessary to Sweden. A treaty of general pacification for the North, was accordingly concluded at Oliva; by which Polish Prussia was restored to Casimir, who ceded Esthonia, and the northern Livonia, to Sweden. The Danish monarch, still under the terror of the Swedish arms, made also considerable sacrifices.

The north of Europe, for several years after the peace of Oliva, was the theatre of but few considerable events. In 1665, the king of Denmark assisted the Dutch in their war against England, with a fleet of 40 ships, in consideration of an annual subsidy of 1500 crowns.

In 1668, Sweden became a party in the defensive alliance which was formed by England and Holland, to resist the power of France.

In the mean time, the Hungarian nobles, whose privileges had been invaded by the emperor, flew to arms, and even craved the assistance of the Turks, their old and implacable enemies. The rebels were quickly subdued, by the vigour of Leopold. But the body of that brave people, who had so often repelled the infidels, and tilled with the sword in their hand, a country watered with the blood of their ancestors, were still dissatisfied; and Germany itself, deprived of so strong a barrier as Hungary, was soon threatened by the Turks.

The emperor entered into an alliance with the Dutch and Spaniards; and from this time became a party in the war against Lewis.

This war will be more particularly treated of in another part of this work; but we must here observe, that the flames soon spread to the north of Europe.

The king of Sweden was induced, by the payment of large subsidies, to take part with France; but had soon cause to repent of this resolution.

The Dutch, the Spaniards, and the Danes, became at once his enemies. He was defeated by the elector of Brandenburg, whose territories he had invaded, and lost all Pomerania. Bremerfust was taken by the troops of Brunswick Lunenburg; Wolgast by those of Brandenburg; and Wismar fell into the hands of the Danes.

These conquests were, however, restored by the treaty of Nimeguen, and the treaty of Westphalia remained in full force in Germany and the North.

Lewis, soon after the treaty of Nimeguen, began to encroach upon the rights of Germany; but the imperial armies were employed in another quarter, to oppose a more pressing danger.

The Hungarians, whose privileges Leopold had never sufficiently respected, had again broke out into rebellion, and Tekeli, the head of the insurgents, had called in

the Turks to the support of his countrymen. By the assistance of the basnaw of Buda, he ravaged Silesia, and reduced many important places in Hungary; while Mahomet IV. the reigning sultan, was preparing the most formidable force that the Ottoman empire had ever sent against Christendom.

Leopold, foreseeing that the gathering storm would finally break upon Germany, beside demanding the assistance of the princes of the empire, concluded an offensive and defensive alliance with John Sobieski, king of Poland. Meanwhile, the grand vizier, Kara Mustapha, passing through Hungary, at the head of 50,000 janizaries, 30,000 spahis, and 200,000 common men, assembled for the occasion, with baggage and artillery in proportion to such a multitude, advanced towards Vienna. The duke of Lorrain, who commanded the imperial forces, attempted in vain to oppose the progress of the invader. The Turks, under the grand vizier, took the right of the Danube, and Tekeli, with the Hungarians, the left. Seeing his capital threatened on every side, the emperor retired first to Lintz, and afterwards to Passau. Two thirds of the inhabitants followed the court; and nothing was to be seen, on all sides, but fugitives, equipages, and carriages laden with moveables. The whole empire was thrown into consternation.

The garrison of Vienna amounted to about 15,000 men; and the citizens able to bear arms, to near 50,000. The Turks invested the town on the 17th of July: and they had not only destroyed the suburbs, but made a breach in the body of the place by the 1st of September. The duke of Lorrain had been so fortunate as to prevent the Hungarians from joining the Turks, but was unable to lend the garrison any relief; and an assault was every moment expected, when a deliverer appeared. John Sobieski, king of Poland, having joined his troops to those of Saxony, Bavaria, and the Circles, made a signal to the besieged from the top of the mountain of Calemberg, and inspired them with new hopes. Kara Mustapha, who, from a contempt of the christians, had neglected to push the assault, and who, amidst the progress of ruin, had wantoned in luxury, was now made sensible of his mistake, when too late to repair it.

The christians, to the number of 64,000, descended the mountain, under the command of the king of Poland, the duke of Lorrain, and an incredible number of German princes. The grand visier advanced to meet them at the head of the main body of the Turkish army, while he ordered an assault to be made upon the city with 20,000 men, who were left in the trenches. The assault failed; and the Turks being seized with a panic, were routed almost without resistance. Only 500 of the victors fell, and not above 1000 of the vanquished. And so great was the terror, and so precipitate the flight of the infidels, that they abandoned not only their tents, artillery, and baggage, but left behind them even the famous standard of Mahomet, which was sent as a present to the pope. The Turks received another defeat, in the plain of Barcan; and all Hungary, on both sides of the Danube, was recovered by the imperial arms.

The emperor having subdued the Hungarian malcontents, and defeated the Turks, turned his attention to the side of France. A league was concluded by the whole

empire at Augsburg to defend the liberties of Europe ; and to this league Denmark and Sweden, as well as many of the southern powers afterward acceded.

For nine years after the league of Augsburg, the emperor was exposed to a double war ; that on the side of France, which was terminated by the treaty of Ryswick, in 1697 ; and that with the Turks, in which the Austrians were ultimately successful ; the Turks being obliged to cede to the emperor by the treaty of Carlowitz, all Hungary on this side the Saave, with Transylvania and Sclavonia.

The treaty of Ryswick was not productive of lasting tranquillity. The powers of the south and west were very soon after engaged, first in negotiation, and then in war, to promote or resist the progress of the house of Bourbon ; while the affairs of the north and east were agitated by the long and bloody contest between Charles XII. and Peter the Great, two of the most extraordinary men that ever existed. In order to teach his half civilized subjects the art of war, and to gain a port on the eastern shore of the Baltic, the latter of these monarchs joined with the kings of Poland and Denmark in unprovoked hostilities against the young Charles of Sweden.

In these ambitious projects the hostile princes were encouraged, not only by the youth of the king of Sweden, who had succeeded his father, Charles XI. in 1697, when only 15 years of age, but by the little estimation in which he was held by foreign courts. Charles, however, suddenly gave the lie to public opinions, by discovering the greatest talents for war, accompanied with the most enterprizing and heroic spirit. No sooner did the occasion call, than his bold genius began to shew itself. Instead of being disconcerted, when told of the powerful confederacy that was forming against him, he seemed rather to rejoice at the opportunity which it would afford him of displaying his courage. Meanwhile, he did not neglect the necessary preparations or precautions. He renewed the alliance of Sweden with England and Holland ; and he sent an army into Pomerania, to be ready to support the duke of Holstein, his brother-in-law.

On Holstein the storm first fell. The Danes, led by the duke of Wurtemburg, and encouraged by the presence of their sovereign, invaded that duchy ; and after taking some inconsiderable places, invested Tonningen, while the Russians, Poles, and Saxons, entered Livonia and Ingria. The moment Charles was informed of the invasion of Holstein, he resolved to carry war into the kingdom of Denmark. He accordingly left his capital, never more to return thither, and embarked with his troops at Carlscroon ; having appointed an extraordinary council, chosen from the senate, to regulate affairs during his absence. The Swedish fleet was joined at the mouth of the Sound, by a combined squadron of English and Dutch men of war, which William, as both king of England and Stadtholder of Holland, had sent to the assistance of his ally. The Danish fleet, unable to face the enemy, retired under the guns of Copenhagen. which was bombarded ; and the king of Denmark, who had failed in his attempt upon Tonningen, was himself cooped up in Holstein, by some Swedish frigates cruising on the coast.

In this critical season, the enterprizing spirit of the young king of Sweden suggested to him the means of finishing the war at a blow. He proposed to besiege Copenhagen

by land, while the combined fleet blocked it up by sea. The idea was admired by all his generals, and the necessary preparations were made for a descent. The king himself, impatient to reach the shore, leaped into the sea, sword in hand, where the water rose above his middle. His example was followed by all his officers and soldiers, who quickly put to flight the Danish troops that attempted to oppose his landing. Charles, who had never before been present at a general discharge of muskets loaded with ball, asked major Stuart, who stood near him, what occasioned the whistling which he heard. "It is the sound of the bullets," replied the major, "which they fire against your majesty." "Very well," said the king, "this shall henceforth be my music."

The citizens of Copenhagen, filled with consternation, sent a deputation to Charles, beseeching him not to bombard the town. He, on horseback, received the deputies at the head of his regiment of guards. They fell on their knees before him; and he granted their request, on their agreeing to pay him 400,000 rix-dollars. In the mean time, the king of Denmark was in the most perilous situation; pressed by land on one side, and confined by sea on the other. The Swedes were in the heart of his dominions, and his capital and his fleet were both ready to fall into their hands. He could derive no hopes but from negotiation and submission. The king of England offered his mediation: the French ambassador also interposed his good offices; and a treaty, highly advantageous to Charles, was concluded at Travendale, between Denmark, Sweden, and Holstein, to the exclusion of Russia and Poland.

As the scene of the next operations of the northern powers was laid in Poland and Russia, all that will be necessary in this place is to recite such events as will preserve the thread of the narration.

Immediately after raising the siege of Copenhagen, Charles, with 8000 men, defeated 80,000 Russians, who were engaged in the siege of Narva.

Having passed the winter at Narva, he entered Poland early the next spring, and having forced the passage of the Duna, and defeated a large army of Saxons and Poles, penetrated to Mittau, the capital of Courland.

From Courland he passed into Lithuania; and at Birzen, where the confederated princes had planned his destruction, formed the design of dethroning the king of Poland, by availing himself of the discontent of his subjects.

In 1703, he saw these purposes accomplished; the diet at Warsaw having declared Augustus, king of Poland, incapable of reigning, and the throne necessarily vacant; and Stanislaus Leczinski, Palatine of Posnania, being elected king, through the interest of the Swedish monarch.

In 1706, 60,000 Russians, who were sent into Poland to the assistance of Augustus, were defeated by the victorious Swedes, and obliged to recross the Boristhenes. At the same time, in another quarter, a large army of Russians and Saxons were defeated by Renschild, a renowned Swedish general. After this, Charles entered Saxony, and compelled Augustus to relinquish all pretensions to the crown of Poland.

In 1708, he again expelled the Russians from Poland, and having slighted the great Peter's proposals for peace, attempted, without any due preparations, to force his

way to Moscow. He was, however, totally defeated at Pultowa, and reduced to seek refuge among the enemies of Christendom. By his intrigues with the court of Constantinople, he involved the Turks in a war with the Russians; in which the latter were saved from ruin only by the clemency of Baltagi, the grand vizier.

On these most humiliating conditions, Peter was allowed to retire with his army. The Turks supplied him with provisions; so that he had plenty of every thing in his camp, only two hours after signing the treaty. He did not, however, a moment delay his retreat, aware of the danger of intervening accidents. And just as he was marching off, with drums beating and colours flying, the king of Sweden arrived impatient for the fight, and happy in the thought of having his enemy in his power. Ponitowski met him with a dejected countenance, and informed him of the peace. Inflamed with resentment, Charles flew to the tent of the grand vizier, and keenly reproached him with the treaty he had concluded. "I have a right," said Baltagi, with a calm aspect, "to make either peace or war. And our law commands us to grant peace to our enemies, when they implore our clemency." "And does it command you," subjoined Charles, in a haughty tone, "to stay the operations of war by an unmeaning treaty, when you might impose the law of the conqueror? Did not fortune afford you an opportunity of leading the czar in chains to Constantinople?" The grand vizier, thus pressed, replied with an imperious frown, "And who would have governed his empire in his absence? It is not proper that *all* crowned heads should leave their dominions." Charles made no answer only by a sarcastic smile. Swelling with indignation, he threw himself upon a sofa, and darting on all around him a look of disdain, he stretched out his leg, and entangling his spur in Baltagi's robe, purposely tore it. The grand vizier took no notice of this splenetic insult, which he seemed to consider as an accident; and the king of Sweden, farther mortified by that magnanimous neglect, sprung up, mounted his horse, and returned with a sorrowful heart to Bender.

Baltagi Mahomet, however, was soon made sensible of his error, in not paying more regard to the claims of Charles XII. For although the Grand Seignior was so well pleased with the treaty concluded with the czar, when the news first reached Constantinople, that he ordered public rejoicings to be held for a whole week, Ponitowski and the other agents of Charles soon found means to persuade him, that his interest had been betrayed. The grand vizier was disgraced. But the minister who succeeded Baltagi in that high office, was yet less disposed to favour the views of the king of Sweden. His liberal allowance of 500 crowns a day, beside a profusion of every thing necessary for his table, was withdrawn, in consequence of his intrigues. All his attempts to kindle a new war between the Turks and Russians proved ineffectual; and the divan, wearied out with his perpetual importunities, came to a resolution to send him back, not with a numerous army, as a king whose cause the sultan meant to abet, but as a troublesome fugitive, whom he wanted to dismiss, attended by a sufficient guard.

To that purpose, Achmet III. sent Charles a letter; in which, after stiling him the most powerful among the kings who worship Jesus, brilliant in majesty, a lover of honour and glory, he very positively requires his departure. "Though we had propos-

ed," says the sultan, "to march our victorious army once more against the czar, we have found reason to change our resolution. In order to avoid the just resentment which we had expressed at his delaying to execute the treaty concluded on the banks of the Pruth, and afterwards renewed at our sublime Porte, that prince has surrendered into our hands the castle and city of Azoph; and endeavoured, through the mediation of the ambassadors of England and Holland, our antient allies, to cultivate a lasting peace with us. We have therefore granted his request, and delivered to his plenipotentiaries, who remain with us as hostages, our imperial ratification, having first received his from their hands. You must, therefore, prepare to set out, under the protection of providence, and with an honourable guard, on purpose to return to your dominions, taking care to pass through those of Poland in a peaceable manner."

Although this letter was sufficiently explicit, it did not extinguish the hopes of the king of Sweden. He still flattered himself that he should be able to involve the Porte in a new war with Russia: and he had almost accomplished his aim. He discovered that the czar had not yet withdrawn his troops from Poland. He made the sultan acquainted with that circumstance. The grand vizier was disgraced, for neglecting to enforce the execution of so material an article in the late treaty; and the Russian ambassador was committed to the castle of the Seven Towers. This storm, however, was soon dissipated. The czar's plenipotentiaries, who had not yet left the Porte, engaged that their master should withdraw his troops from Poland. The treaty of peace was renewed; and the king of Sweden was given to understand that he must immediately prepare for his departure.

When the order of the Porte was communicated to Charles, by the bashaw of Bender, he replied, that he could not set out on his journey until he had received money to pay his debts. The bashaw asked how much would be necessary. The king, at a venture, said, 1000 purses. The bashaw acquainted the Porte with his request; and the sultan, instead of 1000, granted 1200 purses. "Our imperial munificence," says he, in a letter to the bashaw, "hath granted 1000 purses to the king of Sweden, which shall be sent to Bender, under the care and conduct of the most illustrious Mahomet Bashaw, to remain in your custody until the departure of the Swedish monarch; and then be given him, together with 200 purses more, as a mark of our imperial liberality above what he demands."

Notwithstanding the strictness of these orders, Grothusen, the king of Sweden's secretary, found means to get the money from the bashaw before the departure of his master, under pretence of making the necessary preparations for his journey; and a few days after, in order to procure further delay, Charles demanded another thousand purses. Confounded at this request, the bashaw stood for a moment speechless, and was observed to drop a tear. "I shall lose my head," said he, "for having obliged your majesty!" and took his leave with a sorrowful countenance. He wrote, however, to the Porte in his own vindication; protested that he did not deliver 1200 purses, but upon a solemn promise from the king of Sweden's minister, that his master would instantly depart. The bashaw's excuse was sustained. The displeasure of Achmet fell wholly upon

Charles. Having convoked an extraordinary divan, he spoke to the following purport, his eyes flashing with indignation. "I hardly ever knew the king of Sweden, except by his defeat at Pultowa, and the request he made to me for an asylum in my dominions. I have not, I believe, any need of his assistance, or cause to love or fear him. Nevertheless, without being influenced by any other motive than the hospitality of a Mussulman, directed by my natural generosity, which sheds the dew of beneficence upon the great as well as the small, upon strangers as well as my own subjects, I have received, protected, and maintained himself, his ministers, officers, and soldiers, according to the dignity of a king; and, for the space of three years and an half, have never with-held my hand from loading him with favours. I have granted him a considerable guard to conduct him back to his own kingdom. He asked 1000 purses to pay some debts, though I defray all his expences: instead of 1000, I granted him 1200 purses; and having received these, he yet refuses to depart, until he shall obtain 1000 more, and a stronger guard, although that already appointed is fully sufficient. I therefore ask you, whether it will be a breach of the laws of hospitality to send away this prince? and whether foreign powers can reasonably tax me with cruelty and injustice, if I should be under the necessity of using force to compel him to depart?"

All the members of the divan answered, That such a conduct would be consistent with the strictest rules of justice. An order to that effect was accordingly sent to the bashaw of Bender, who immediately waited upon the king of Sweden, and made him acquainted with it. "Obey your master, if you dare," said Charles, "and leave my presence instantly." The bashaw did not need this insult to animate him to his duty. He coolly prepared to execute the commands of his sovereign; and Charles, in spite of the earnest entreaties of his friends and servants, resolved, with 300 Swedes, to oppose an army of Turks and Tartars, having ordered regular entrenchments to be thrown up for that purpose. After some hesitation, occasioned by the uncommon nature of the service, the word of command was given. The Turks marched up, to the Swedish fortifications, the Tartars being already waiting for them, and the cannon began to play. The little camp was instantly forced, and the whole 300 Swedes made prisoners.

Charles, who was then on horseback between the camp and his house, took refuge in the latter, attended by a few general officers and domestics. With these he fired from the windows upon the Turks and Tartars, killed about 200 of them, and bravely maintained his post, till the house was all in flames, and one half of the room fell in. In this extremity, a centinel, named Rosen, had the presence of mind to observe, that the chancery-house, which was only 50 yards distant, had a stone roof, and was proof against fire; that they ought to sally forth, take possession of that house, and defend themselves to the last extremity. "There is a true Swede," cried Charles, rushing out like a madman, at the head of a few desperadoes. The Turks at first recoiled, from respect to the person of the king; but suddenly recollecting their orders, they surrounded the Swedes, and Charles was made prisoner, together with all his attendants. Being in boots, as usual, he entangled himself with his spurs, and fell. A number of janizaries sprung upon him. He threw his sword up into the air, to save himself the

mortification of surrendering it; and some of the janizaries taking hold of his legs, and others of his arms, he was carried in that manner to the bashaw's quarters.

The bashaw gave Charles his own apartment, and ordered him to be served as a king, but not without taking the precaution of planting a guard of janizaries at the chamber door. Next day he was conducted toward Adrianople, as a prisoner, in a chariot covered with scarlet. On his way he was informed by the baron Fabricius, ambassador from the duke of Holstein, that he was not the only Christian monarch that was a prisoner in the hands of the Turks; that his friend Stanislaus, having come to share his fortunes, had been taken into custody, and was only a few miles distant, under a guard of soldiers, who were conducting him to Bender. "Run to him, my dear Fabricius!" cried Charles, "desire him never to make peace with Augustus, and assure him that our affairs will soon take a more flattering turn." Fabricius hastened to execute his commission, attended by a janizary, having first obtained leave from the bashaw, who, in person, commanded the guard.

So entirely was the king of Sweden wedded to his own opinions, that although abandoned by all the world, stript of great part of his dominions, a fugitive among the Turks, whose liberality he had abused, and now led captive, without knowing whither he was to be carried, he still reckoned on the favours of fortune, and hoped the Ottoman court would send him home at the head of 100,000 men. This idea continued to occupy him during the whole time of his confinement. He was at first committed to the castle of Demirtash, in the neighbourhood of Adrianople; but afterward allowed to reside at Demotica, a little town about six leagues distant from that city, and near the famous river Hebrus, now called Merizza. There he renewed his intrigues; and a French adventurer, counterfeiting madness, had the boldness to present, in his name, a memorial to the Grand Seignior. In this memorial, the imaginary wrongs of Charles were set forth in the strongest terms, and the minister of the Porte accused of extorting from the sultan an order, in direct violation of the laws of nations, as well as of the hospitality of a Mussulman; an order in itself utterly unworthy of a great emperor, to attack, with 20,000 men, a sovereign who had none but his domestics to defend him, and who relied upon the sacred word of the sublime Achmet.

In consequence of this intrigue, as was supposed, a sudden change took place in the seraglio. The mufti was deposed; the khan of Tartary, who depends upon the grand seignior, was banished to Rhodes, and the bashaw of Bender confined in one of the islands of the Archipelago. One vizier was disgraced, and another strangled. But these changes in the ministry of the Porte, produced none in the condition of the king of Sweden, who still remained a prisoner at Demotica; and, lest the Turks should not pay him the respect due to his royal person, or oblige him to condescend to any thing beneath his dignity, he resolved to keep his bed, during his captivity, under pretence of sickness. This resolution he kept for ten months.

While the naturally active and indefatigable Charles, who held in contempt all effeminate indulgences, and had set even the elements themselves at defiance, was wasting, from caprice, his time and his constitution in bed, or harassing his mind with

fruitless intrigues, the northern princes, who had formerly trembled at his name, and whom he might still, by a different conduct, have made tremble, were dismembering his dominions. General Steenbock, who had distinguished himself by driving the Danes out of Schonen, and defeating their best troops with an inferior number of Swedish militia, defended Pomerania, Bremen, and all his master's possessions in Germany, as long as possible. But he could not prevent the combined army of Danes and Saxons from besieging Stade; a place of great strength and importance, situated on the banks of the Elbe, in the duchy of Bremen. The town was bombarded and reduced to ashes, and the garrison obliged to surrender before Steenbock could come to their assistance.

The Swedish general, however, with 12,000 men, pursued the enemy, though twice his number, and overtook them at a place called Gadesbush, in the duchy of Mecklenburg, in December, 1712. He was separated from them, when he first came in sight, by a morass. The Danes and Saxons, who did not decline the combat, were so posted as to have this morass in front, aud a wood in the rear. They had the advantage of numbers and situation; yet Steenbock, notwithstanding these adverse circumstances, passed the morass at the head of his troops, and began one of the most furious and bloody battles that ever happened between the rival nations of the north. After a desperate conflict of three hours, the Danes and Saxons were totally routed, and driven off the field with great slaughter.

But Steenbock stained the honour of his victory, by burning the flourishing, though defenceless, town of Altena, belonging to the king of Denmark. In consequence of that severity, many thousands of the inhabitants perished of hunger and cold. All Germany exclaimed against so shocking an insult to humanity; and the ministers of Poland and Denmark wrote to the Swedish general, reproaching him with an act of cruelty committed without necessity, and which could not fail to awaken the vengeance of heaven and earth against him. The enlightened, but unfeeling Goth replied, That he never should have exercised such rigour, had it not been with a view to teach the enemies of Sweden to respect the laws of nations, and not to make war, for the future, like barbarians. They had not only, he observed, laid waste the beautiful province of Pomerania, but sold near an hundred thousand of its inhabitants to the Turks; and the torches which had laid Altena in ashes, he affirmed, were no more than a just retaliation for the red hot bullets, which had wrapt in flames the more venerable city of Stade.

Had the king of Sweden appeared in Pomerania, while his subjects carried on the war with such implacable resentment, and even with success, against their numerous enemies, he might, perhaps, have retrieved his ruinous fortune. His troops, though so widely separated from his person, were still animated by his spirit. But the absence of a prince is always prejudicial to his affairs, and more especially prevents his generals from making a proper use of their victories. Steenbock lost, almost instantly, the fruits of his valour and conduct, which, at a happier crisis, would have been permanent conquests. Though victorious, he could not prevent the junction of the Russians,

Danes, and Saxons, who obliged him to seek an asylum for himself and his gallant army in Toningen, a fortress in the duchy of Holstein.

That duchy was then subjected to the most cruel ravages of any part of the north. The young duke of Holstein, nephew of Charles XII. and presumptive heir to the crown of Sweden, was the natural enemy of the king of Denmark, who had endeavoured to strip his father of his dominions, and to crush himself in the very cradle. The bishop of Lubeck, one of his father's brothers, and administrator of the dominions of his unfortunate ward, now beheld himself in a very critical situation. His own territories were already exhausted by continual contributions; the Swedish army claimed his protection; and the forces of Russia, Denmark, and Saxony, threatened the duchy of Holstein with immediate desolation. But that danger was seemingly removed by the address of the famous baron de Goertz, who wholly governed the bishop, and was the most artful and enterprizing man of his time; endowed with a genius amazingly penetrating, and fruitful in every resource.

Goertz had a private conference with general Steenbock, at which he promised to deliver up to him the fortress of Toningen, without exposing the bishop-administrator, his master, to any inconveniency: and he gave, at the same time, the strongest assurances to the king of Denmark, that he would defend the place to the utmost. The governor accordingly refused to open the gates; but the Swedes were admitted partly within the walls, and partly under the cannon of the town, in consequence of a pretended order from the young duke, who was yet a minor.

This indulgence, however, procured by so much ingenious deceit, proved of little use to the brave Steenbock, who was soon obliged to surrender himself prisoner of war, together with his whole army.

The territories of Holstein now remained at the mercy of the incensed conquerors. The young duke became the object of the king of Denmark's vengeance, and was doomed to pay for the abuse which Goertz had made of his name. Finding his original project thus rendered abortive, the baron formed a scheme for establishing a neutrality in the Swedish provinces in Germany. With this view, he privately entered into a negotiation, and at the same time, with the several princes, who had set up claims to any part of the territories of Charles XII. all which, the kingdom of Sweden excepted, were ready to become the property of those who wanted to share them. Night and day he continued passing from one province to another. He engaged the governor of Bremen and Verden to put those two duchies into the hands of the elector of Hanover, by way of sequestration, in order to prevent the Danes from taking possession of them for themselves; and he prevailed with the king of Prussia to accept, in conjunction with the duke of Holstein, of the sequestration of Stetin, which was in danger of falling a prey to the Russians.

In the mean time, the czar was pushing his conquests in Finland. Having made a descent at Elsingford, in the most southern part of that cold and barren region, he ordered a feigned attack to be made on one side of the harbour, while he landed his troops on the other, and took possession of the town. He afterward made himself

master of Abo, Borgo, and the whole coast; defeated the Swedes near Tavestius, a port which commanded the Gulf of Bothnia, penetrated as far as Vaza, and reduced every fortress in the country. Nor were the conquests of Peter confined to the land. He gained a complete victory over the Swedes by sea, and made himself master of the island of Oeland.

During these important transactions, so fatal to the power and the glory of Sweden, Charles continued to keep his bed at Dometica. Meanwhile, the regency at Stockholm, driven to despair by the desperate situation of their affairs, and the absence of their sovereign, who seemed to have utterly abandoned his dominions, had come to a resolution no more to consult him in regard to their proceedings. And the senate went in a body to the princess Ulrica Eleanora, the king's sister, and entreated her to take the government into her own hands until the return of her brother. She agreed to the proposal; but finding that their purpose was to force her to make peace with Russia and Denmark, a measure to which she knew her brother would never consent, on disadvantageous terms, she resigned the regency, and wrote a full and circumstantial account of the whole matter to the king.

Roused from his affected sickness, by what he considered as a treasonable attempt upon his authority, and now despairing of being able to make the Porte take arms in his favour, Charles signified to the Grand vizier his desire of returning, through Germany, to his own dominions. The Turkish ministry neglected nothing which might facilitate that event. In the mean time, the king of Sweden, whose principles were perfectly despotic, wrote to the senate, that if they pretended to assume the reins of government, he would send them one of his boots, from which they should receive their orders! and all things being prepared for his departure, he set out with a convoy consisting of 60 loaded waggons, and 300 horse.

On his approaching the frontiers of Germany, the Swedish monarch had the satisfaction to learn, that the emperor had given orders that he should be received in every part of his imperial dominions, with the respect due to his rank. But Charles had no inclination to bear the fatigue of so much pomp and ceremony. He therefore took leave of his Turkish convoy, as soon as he arrived at Targowitz, on the confines of Transylvania; and assembling his attendants, desired them to give themselves no farther concern about him, but to proceed with all possible expedition to Stralsund in Pomerania. The king himself in disguise, attended only by two officers, arrived at that place, after making the tour of Germany. And, without considering the wretched state of his affairs, he immediately dispatched orders to his generals, to renew the war against all his enemies with fresh vigour.

The approach of winter, however, prevented any military operations being prosecuted until the spring. Meanwhile, the king of Sweden was employed in recruiting his armies; and in order to strengthen his interest, he gave his only surviving sister, Ulrica Eleanora, in marriage to Frederic, prince of Hesse Cassel, who had distinguished himself in the imperial service in the Low Countries, and was esteemed a good general.

But Charles, on the opening of the campaign, was surrounded by such a multitude of enemies, that valour or conduct, without a greater force, could be of little service. The German troops of the elector of Hanover, now king of Great Britain, together with those of Denmark, invested the strong town of Wismar, while the combined army of Prussians, Danes, and Saxons, marched toward Stralsund, to form the siege of that important place. The czar was at the same time in the Baltic, with 20 ships of war, and 150 transports, carrying 30,000 men. He threatened a descent upon Sweden; and all that kingdom was in arms, expecting every moment an invasion.

Stralsund, the strongest place in Pomerania, is situated between the Baltic Sea and the lake of Franken, near the Straits of Gella. It is inaccessible by land, unless by a narrow causeway, guarded by a citadel, and by the other fortifications which were thought impregnable. It was defended by a body of 12,000 men, commanded by Charles XII. in person, and besieged by the kings of Prussia and Denmark, assisted by the gallant prince of Anhalt, with an army three times the number of the Swedes. The allies were animated by a love of glory and of conquest; the Swedes by despair, and the presence of their warlike king. Unfortunately, however, for the latter, it was discovered that the sea, which, on one side, secured the Swedish entrenchments, was at times fordable.

In consequence of this discovery, the Swedes were unexpectedly attacked at night. While one body of the besiegers advanced upon the causeway that led to the citadel, another entered the ebbing tide, and penetrated by the shore into the Swedish camp, before their approach was so much as suspected. The Swedes thus surprized, and assailed both in flank and rear, were incapable of resistance. After a terrible slaughter, they were obliged to abandon their entrenchment: to evacuate the citadel, and take refuge in the town, against which their own cannon were now pointed by the enemy, who henceforth pushed the siege with unremitting vigour.

In order to deprive the king of Sweden and his little army of all succours, or of even the possibility of escape, the allies had begun their operations with chasing the Swedish fleet from the coast of Pomerania, and taking possession of the isle of Usedom, which made a gallant defence. They now resolved to make themselves masters of the isle of Rugen, opposite Stralsund, and which serves as a bulwark to the place. Though sensible of the importance of Rugen, and of the designs of the enemy, Charles was not able to place in it a sufficient garrison. Twenty thousand men, under the prince of Anhalt, were landed in that island, without any loss. The king of Sweden hastened to its relief, the same day, with 4000 choice troops.

Putting himself at the head of this small body, and observing the most profound silence, Charles advanced at midnight against the invaders. But he did not find them unprepared. The prince of Anhalt, aware what incredible things the unfortunate monarch was capable of attempting, had ordered a deep fosse to be sunk as soon as he landed, and fortified it with chevaux de frise. The king of Sweden, who marched on foot, sword in hand, was not therefore a little surprized, when, plucking up some

of the chevaux de frize, he discovered a ditch. He was not, however, disconcerted. Having instantly formed his resolution, he leaped into the fosse, accompanied by the boldest of his men, and attempted to force the enemy's camp.

The impetuosity of the assault threw the Danes and Prussians at first into some confusion. But the contest was unequal. After an attack of 20 minutes, the Swedes were repulsed, and obliged to repass the fosse. The prince of Anhalt pursued them into the plain. There the battle was renewed with incredible fury, and victory obstinately disputed; until Charles had seen his secretary, Grothusen, fall dead at his feet; the generals, Dardoff and Daring, killed in his sight, and the greater part of his brave troops cut to pieces. He himself was wounded; and being put on horseback by Poniowski, who had saved his life at Pultowa, and shared his misfortunes in Turkey, he was obliged to make the best of his way to the sea-coast, and abandon Rugen to its fate.

Stralsund was now reduced to the last extremity. The besiegers were arrived at the counter-scarpe, and had already begun to throw a gallery over the principal pitch. The bombs fell as thick as hail upon the houses, and half the town was reduced to ashes. Charles, however, still preserved his firmness of mind. One day, as he was dictating some letters, a bomb bursting in the neighbourhood of his apartment, his secretary dropt his pen. "What is the matter?" said the king, with a degree of chagrin, as if ashamed that any one belonging to him should be capable of fear. "The bomb!" sighed the intimidated scribe, unable to utter another word. "Write on," cried Charles, with an air of indifference; "what relation has the bomb to the letter that I am dictating?" But he was soon obliged to admit less heroic ideas. After two desperate attacks, during which the king of Sweden fought among his grenadiers, like a private man, the besiegers made themselves masters of the horn-work. The grand assault was every moment expected, and Charles was determined to sustain it; but the danger of falling into the hands of his enemies, and being a second time made prisoner from his obstinacy, induced him to listen to the entreaties of his friends, and quit a place which he was no longer able to defend. He accordingly embarked in a small vessel, that was fortunately in the harbour; and, by favour of the night, passing safely through the Danish fleet, reached one of his own ships, which landed him in Sweden. Stralsund surrendered next day.

The king of Sweden, not choosing to visit his capital in his present unfortunate circumstances, passed the winter at Carlscroon; from which he had set out, in a very different condition, about 15 years before, animated with all the high hopes of a youthful hero, ready to give law to the North, and who flattered himself with nothing less than the conquest of the world. Those hopes ought now to have been moderated. But Charles had not yet learned to profit by adversity. And, unhappily for his subjects, he found, in his distress, a minister who encouraged his most extravagant projects, and even suggested new schemes of ambition. This was the baron de Goertz, whom we have already had occasion to mention, and who, from a congeniality of ideas, became the particular favourite of the king of Sweden, after his return to his own do-

minions. To such a king and such a minister, nothing seemed impossible. When all Europe expected that Sweden would be invaded, and even over-ran by her numberless enemies, Charles passed over into Norway; and made himself master of Christina. But the obstinate defence of the citadel of Frederickshall, the want of provisions, and the approach of a Danish army, obliged him to abandon his conquest.

Meanwhile, Wismar, the only town that remained to Charles in the frontiers of Germany, had surrendered to the Danes and Prussians; who, jealous of the Russians, would not allow them so much as to be present at the siege. Of this jealousy, which alienated the czar's mind from the cause of the confederates, and perhaps prevented the ruin of Sweden, Goertz took advantage. He ventured to advise his master to purchase a peace from Russia at any price; intimating, that the forces of Charles and Peter, when united, would be able to strike terror into all Europe Nor did he conceal the sacrifices necessary to be made, in order to procure such an union. He declared that, disgusted as the czar was with his allies, there would be a necessity of giving up to him many of the provinces to the east and north of the Baltic. And he entreated the king to consider, that, by relinquishing those provinces, already in the possession of Peter, and which he himself was in no condition to recover, he might lay the foundation of his future greatness. Pleased with the mighty project, without building upon it, Charles furnished his minister with full power to treat with the czar, or any other prince with whom he should think proper to negotiate.

Goertz accordingly, by himself or his agents, secretly entered into negotiations, which he conducted, at the same time, with the heads of the English Jacobites, and with the courts of Petersburg and Madrid. Alberoni, the Spanish minister, a man of the most boundless ambition, and in genius not inferior to the northern statesman, had resolved to place the Pretender on the throne of Great Britain; and the duke of Ormond, whose zeal knew no bounds, projected a marriage between that prince and Anna Petrowna, daughter of the czar. In consequence of these intrigues, count Gillomburg, the Swedish ambassador at the court of London, was taken into custody, and Goertz in Holland. They were set at liberty, however, after an imprisonment of six months, and Goertz renewed his negotiations with the court of Russia. Peter proceeded cautiously; but conferences were, at last, appointed to be held in the island of Oeland. And every thing seemed to promise the conclusion of a treaty, which would probably have changed the face of affairs in Europe, when an unexpected event, fortunately for the repose of mankind, rendered abortive all the labours of the baron de Goertz.

This was the death of the king of Sweden. Having undertaken a second expedition into Norway, instead of attempting to recover any of his fertile German provinces, he sat down before Frederickshall, in the month of December; when the ground was as hard as iron, and the cold so intense, that the soldiers on duty frequently dropt down dead. In order to animate them, he exposed himself to all the rigour of the climate, as well as the dangers of the siege; sleeping even in the open air, covered only with his cloak. One night, as he was viewing them carry on their approaches by star-light, he was killed, it is asserted, by an half-pound ball, from a cannon loaded with grape-

shot. Though he expired without a groan, the moment he received the blow, he had instinctively grasped the hilt of his sword, and was found with his hand in that position, so truly characteristic of his mind.

The death of Charles was considered as a signal for a general cessation of arms. The prince of Hesse, who commanded under the king, immediately raised the siege of Fredrickshall, and led back the Swedes to their own country. Nor did the Danes attempt to molest them on their march.

The first act of the senate of Sweden, after being informed of the fate of their sovereign, was to order the baron de Goertz to be arrested; and a new crime was invented for his destruction. He was accused of having slanderously misrepresented the nation to the king. He had, at least, encouraged the king in his ambitious projects, which had brought the nation to the verge of ruin. He had invented a number of oppressive taxes, in order to support those projects; and when every other resource failed, he had advised his master, to give to copper money the value of silver; an expedient productive of more misery than all the former. In resentment of these injuries, Goertz, though found guilty of no legal crime, was condemned to lose his head, and executed at the foot of the common gallows.

The Swedes having thus gratified their vengeance, at the expence of the reputation of a king, whose memory they still adore, proceeded to the regulation of their government. By a free and voluntary choice, the states of the kingdom elected Ulrica Eleanora, sister of Charles XII. for their queen. But they obliged her by a solemn act, to renounce all hereditary right to the crown, that she might hold it entirely by the suffrage of the people; while she bound herself, by the most sacred oaths, never to attempt the re-establishment of arbitrary power. And sacrificing, soon after, the love of royalty to conjugal affection, she relinquished the crown to her husband, the prince of Hesse, who was chosen by the states, and mounted the throne on the same conditions with his royal consort.

The new government was no sooner established, than the Swedes turned their views toward peace. It was accordingly brought about by different treaties. One with the king of Great Britain, as elector of Hanover, to whom the queen of Sweden agreed to cede the duchies of Bremen and Verdun, in consideration of a million of rix-dollars; another with the king of Prussia, who restored Stralsund and the isle of Rugen, and kept Stetin, with the isles of Usedon and Wollin; and a third with the king of Denmark, who retained part of the duchy of Sleswick, conquered from the duke of Holstein, and gave up Wismar, on condition that the fortifications should not be rebuilt. The war with Russia still continued; but an English squadron being sent to the assistance of Sweden, the czar thought proper to recal his fleet, after committing most terrible depredations on the coasts of that kingdom. New negotiations were opened at Nystadt; where a treaty of peace was at last concluded between the hostile crowns, by which the czar was left in possession of the provinces of Livonia, Esthonia, and Ingria, with part of Carelia, and part of Finland.

For a very considerable interval after the conclusion of this treaty, Europe in general

enjoyed an unusual tranquillity; and the north of it especially, affords few materials for history.

At length, however, a more busy scene opens, and our attention is insensibly drawn to one of the most renowned warriors and accomslished princes of the last century. As early as the treaty of Seville, which was confirmed by another at Vienna, in 1731, Charles VI. apprehensive of the calamities which might fall upon his family and his country in the event of his death without male issue, stipulated with England, Holland, and France, that they should guarantee the Pragmatic Sanction, or domestic law; by which the succession to the hereditary dominions of the house of Austria were secured to the female as well as male heirs of the emperor. In 1740, Charles died, and his eldest daughter, Maria Theresa, succeeded, without opposition, to his extensive dominions. Possessed of a popular affability, which her predecessor had seldom put in practice, she gained the hearts of her subjects, without diminishing her dignity.

But above all, she ingratiated herself with the Hungarians, by voluntarily accepting the antient oaths of their sovereigns, by which their subjects, should their privileges be invaded, are allowed to defend themselves, without being treated as rebels.

She was, however, destitute of money, and a number of competitors soon rose up against her.

The war in which she was involved, was one of those great movements which affect the whole of Europe; and which, in consequence, we shall defer the relation to a succeeding part of this work, but shall here trace the progress of her formidable enemy, Frederic III. king of Prussia.

Frederic, on his accession to the Prussian crown, found himself in possession of an immense treasure which had been amassed by his father. Resolving to employ his resources for the enlargement of his territories, he took advantage of the distresses of Maria Theresa, to revive some antiquated claims to four duchies in Silesia; and without publishing any manifestoes, began his march with 30,000 choice troops, in order to assert his right. He defeated the forces of the queen at Neisschouing: gained the victory by the firmness of his infantry, and their celerity in firing. He now became master of the whole province of Silesia; and procured his title to that country to be confirmed by a treaty of alliance with Lewis XV.

In 1742, a very hard fought engagement took place at Czaslaw, between the king of Prussia and prince Charles of Lorrain. The disciplined troops on both sides were nearly equal; but the Austrians had the advantage of a large body of barbarous irregulars, Croats, Pandours, Talpaches, who engaged with incredible fury. The Prussians were broken; the king left the field, and a total defeat must have ensued, had not the lust of plunder seized the Austrian irregulars at the sight of the Prussian baggage. Their example infected the regulars of the Austrian right wing, who also gave over the pursuit. The Prussian infantry took this opportunity to rally; they returned to the charge; and, after an obstinate dispute, broke the main body of the Austrian army, and obliged prince Charles to retreat with the loss of 5000 men.

The king of Prussia, whose loss was little inferior to that of the Austrians, sick of

such bloody victories, and no less politic than brave, concluded at Breslaw, without consulting his allies, an advantageous treaty with the queen of Hungary. By this treaty, Maria Theresa ceded to Frederic III. the Upper and Lower Silesia, and the country of Glatz; and he engaged to observe a strict neutrality during the war, and to withdraw his forces from her dominions within 16 days after the signing of these articles.

The treaty was hardly concluded with the king of Prussia, by which Maria Theresa reluctantly yielded up the province of Silesia, and with it a clear revenue of 800,000*l.* a-year, before she entered into another with the court of Petersburg, which was concluded, May 22nd, 1746. This treaty, as far as was made public, was only of a defensive nature; but six secret and separate articles were added to it. By one of these it was provided, that, in case his Prussian majesty should attack the empress queen, or the empress of Russia, or even the republic of Poland, it should be considered as a breach of the treaty of Dresden, by which Silesia was given up. It was also stipulated, that notwithstanding that treaty (which indeed had been dictated by the king of Prussia himself,) the right of the empress queen to Silesia still continued, and for the recovery of that province the contracting powers should mutually furnish an army of 60,000 men. To this treaty, called the treaty of Petersburg, the king of Poland was invited to accede; but he, being, in a manner, in the power of the king of Prussia, did not think proper to sign it; however, he verbally acceded to it in such a manner, that the other parties were fully convinced of his design to co-operate with all their measures; and in consideration of this intention, it was agreed that he should have a share in the partition of the king of Prussia's dominions, in case of a successful event of their enterprizes.

In consequence of these machinations, every art was used to render the king of Prussia personally odious to the empress of Russia; the queen of Hungary made vast preparations in Bohemia and Moravia; and the king of Poland, under pretence of a military amusement, drew together 16,000 men, with whom he occupied a strong post at Pirna. The queen of Hungary, still farther to strengthen herself, concluded a treaty with the court of France at Versailles, dated May 1st, 1756. But, in the mean time, the king of Prussia, having understood by his emissaries what was going forward, resolved to be beforehand with his enemies, and, at least, to keep the war out of his own country; and therefore entered Saxony with a considerable army. At first, he affected only to demand a free passage for his troops, and an observance of the neutrality professed by the king of Poland; but having good reasons to doubt this neutrality, he demanded, as a preliminary, that these Saxon troops should immediately quit the strong post they occupied, and disperse themselves. This demand was refused; on which his Prussian majesty blockaded the Saxon camp at Pirna, resolving to reduce it by famine, since its strong situation rendered an attack very dangerous. At that time there were in Bohemia two Saxon armies, one under the command of M. Brown, and the other under M. Picolomini. To keep these in awe, the king sent M. Schwerin with an army into Bohemia from the country of Glatz, and M. Keith had penetrated into the same kingdom

from the side of Misnia. But still the king of Prussia did not entirely confide in these dispositions; and therefore, fearing lest M. Brown might afford some assistance to the Saxons, he joined his forces under Keith, and on December 1st, attacked and defeated the Austrian general, so that the latter found it impossible to relieve the Saxons, who, after a vain attempt to retire from their post, were all taken prisoners. The king of Poland quitted his dominions in Germany, and the Prussians took up their winter quarters in Saxony. Here they seized on the revenues, levied exorbitant contributions, and obliged the country to furnish them with recruits. The king of Prussia, at this time, made himself master of the archives of Dresden, by which means, he procured the originals of those pieces above-mentioned: which, when produced to the world, gave full proof of the combination that had been formed against him, and consequently justified the measures he had taken for his own defence.

No sooner had he entered Saxony, in the manner related, than a process was commenced against him in the emperor's aulic council, and before the diet of the empire, where he was soon condemned for contumacy, and put to the ban of the empire. The various circles of the empire were ordered to furnish their contingents of men and money to put the sentence in execution; but these came in so slowly, that, had it not been for the assistance of the French, under the prince de Soubise, the army would probably have never been in a condition to act. The Austrians, in the mean time, made great preparations, and raised 100,000 men in Bohemia, whom they committed to the care of prince Charles of Lorrain, assisted by M. Brown. The czarina sent a body of 60,000 men, under M. Apraxin, to invade the Ducal Prussia; whilst a strong fleet was equipped in the Baltic, in order to co-operate with that army. The king of Sweden also acceded to the confederacy, in hopes of recovering the possessions in Pomerania, which his ancestors had enjoyed; and the duke of Mecklenburg took the same party, promising to join the Swedish army with 6000 men as soon as it should be necessary. On the king of Prussia's side appeared no body, excepting an army of between 30 and 40,000 Hanoverians, commanded by the duke of Cumberland; and these were out-numbered, and forced to yield to a superior army of French, commanded by M. D'Etrees.

In the mean time, his Prussian majesty, finding that he must depend for assistance solely on his own abilities, resolved to make the best use of his time. Accordingly, in the spring of 1757, his armies poured into Bohemia from two different quarters, while the king himself prepared to enter it from a third. M. Schwerin entered from Silesia; the prince of Bevern from Lusatia, where he defeated an army of 28,000 Austrians that opposed his passage. As the intentions of the king himself were not known, the Austrians detached a body of 20,000 men from their main army to observe his motions. This was no sooner done, than the king cut off all communication between the detachment and the main body; and having joined his two generals with incredible celerity, he engaged the Austrians near Prague, totally defeated them, took their camp, military chest, and cannon; but lost the brave general Schwerin, who was killed at the

age of 82, with a colonel's standard in his hand. On the Austrian side, M. Brown was wounded, and died in a short time, though it is suppoeed more from the chagrin he suffered, than from the dangerous nature of the wound itself.

About 40,000 of the Austrian army took refuge in Prague, and while the rest fled different ways, the city was instantly invested by the king, and all succours were cut off. The great number of troops which it contained rendered an attack unadvisable, but seemed to render the reduction of it by famine inevitable; however, the king, to accomplish his purpose the more speedily, prepared to bombard the town. On the 29th of May, after a most dreadful storm of thunder and lightning, four batteries began to play on the city. From these were thrown, every 24 hours, 288 bombs, besides a vast number of red-hot balls; so that it was on fire in every quarter. The garrison made a vigorous defence, and one well-conducted sally; but had the misfortune to be repulsed with great loss. The magistrates, burghers, and clergy, seeing their city on the point of being reduced to an heap of rubbish, supplicated the commander in the most earnest manner to capitulate; but he was deaf to their entreaties, and drove 12,000 of the most useless mouths out of town, who were quickly driven in again by the Prussians.

Thus the affairs of the empress queen seemed verging to destruction, when Leopold, count Daun, took upon him the command of the remains of M. Brown's army. This general had arrived within a few miles of Prague the day after the great battle. He immediately collected the scattered fugitives with the greatest diligence, and retired with them to a strong post in the neighbourhood, from whence he gave the troops in Prague hopes of a speedy relief. It was now the king of Prussia's business, either to have attempted to make himself master of the city by one desperate effort, or entirely to have abandoned the enterprize, and driven count Daun before his troops had recovered from the terror of their late defeat; but, by attempting to do both, he rendered himself incapable of doing either. Though the army of count Daun already amounted to 60,000 men, and though they were strongly entrenched, and defended by a vast train of artillery, his majesty thought proper to send no more than 32,000 men. This body made an arduous attack on the 18th of June; but though they did all that human courage and conduct could do, and though the king himself, at last, charged at the head of his cavalry, the Prussians were driven out of the field with great loss. This engagement was named the battle of Colin.

The first consequence of the battle of Colin was that the king of Prussia was obliged to raise the siege of Prague; soon after which, he was obliged to quit Bohemia, and take refuge in Saxony. The Austrians harassed him as much as possible; but notwithstanding their great superiority, their armies were not in a condition to make any decisive attempt upon him, as the frontiers of Saxony abounded with situations easily defended. In the mean time, the Russians, who had hitherto been very dilatory in their motions, began to exert themselves, and entered Ducal Prussia, under M. Apraxin and Fermor, where they committed innumerable cruelties and excesses. A large body of Austrians entered Silesia, and penetrated as far as Breslau. Then they made a turn backwards, and besieged Schweidnitz. Another body entered Lusatia, and made

themselves masters of Zittau. An army of 22,000 Swedes entered Prussian Pomerania; took the towns of Anclam and Demmein, and laid the whole country under contribution. The French too, being freed from all restraint by the capitulation of the duke of Cumberland at Closter Seven, made their way into Halbertstadt and the Old Marche of Brandenburg, for exacting contributions, and then plundering the towns. The army of the empire, being reinforced by that of the prince de Soubise, after many delays, was on full march to enter Saxony, which left the Austrians at liberty to exert the greatest part of their force in the reduction of Silesia. General Haddick penetrated through Lusatia, passed by the Prussian armies, and suddenly appeared before the gates of Berlin; which city he laid under contribution. He retired on the approach of a body of Prussians; yet he still found means to keep such a post as interrupted the king's communication with Silesia. The destruction of the king of Prussia, therefore, now seemed inevitable. Every exertion which he made, though brave and well conducted, had been unsuccessful. His general Lehwald, who opposed the Russians, had orders to attack them at all events. He obeyed his orders; and with 30,000 men attacked 60,000 of the enemy strongly entrenched at a place called Norkitten. The Prussians behaved with the greatest valour; but after having killed five times more of the enemy than they themselves lost, they were obliged to retire, though more formidable after their defeat than the Russians after their victory. The king, in the mean time, exerted himself on every side, and his enemies fled every where before him; but whilst he pursued one body another gained upon him in some other part, and the winter came on fast, while his strength decayed, and that of his adversaries seemed to increase in every quarter.

The Prussian monarch, however, though distressed, did not abandon himself to despair, or lose the wonderful presence of mind which so eminently distinguished him in all his military enterprizes. He industriously delayed a decisive action till the approach of winter; but, at last, after various movements, on November 5th, 1757, he met at Rosbach with the united army of his enemies, commanded by the prince of Saxe Hilburghausen and the prince de Soubise. The allied army amounted to 50,000 men complete; but most of the troops of the circles were new raised, and many of them not well affected to the cause. The Prussians did not exceed 25,000 men; but they were superior to any troops in the world, and were inspired, by the presence of their king, with the most enthusiastic valour. The Austrians were defeated with the loss of 3000 killed, eight generals, 350 officers of different ranks, and 6000 private soldiers taken prisoners, while night alone prevented the total destruction of the army.

By this battle the king was set free on one side; but this only gave him an opportunity of renewing his labours on another. The Austrians had a great force, and now began to make a proportionable progress in Silesia. After a siege of 16 days, they had reduced the strong fortress of Schweidnitz, and obliged the Prussian garrison of 4000 men to surrender prisoners of war. Hearing then of the victory at Rosbach, and that the king of Prussia was in full march to relieve Silesia, they resolved to attack the prince of Bevern, in his strong camp under the walls of Breslau. They attacked the prince's army on November 22nd; but their attack was sustained with the greatest

resolution. The slaughter of the Austrians was prodigious. A great part of the enemy had retired from the field of battle, and the rest were preparing to retire, when all at once the Prussian generals took the same resolution. Their army had suffered much in the engagement, and they became apprehensive of a total defeat in case their entrenchments should be forced in any part; for which reason they quitted their strong post, and retired behind the Oder. Two days after, the prince of Bevern, going to reconnoitre without escort, attended only by a groom, was taken prisoner by an advanced party of Croats, a small body of whom had crossed the Oder.

On this, the town of Breslau immediately surrendered; where, as well as at Schweidnitz, the Austrians found great quantities of provisions, ammunition, and money. All Silesia was on the point of falling into their hands; and the Prussian affairs were going into the utmost distraction, when the king himself, by a most rapid march, passed through Thuringia, Misnia, and Lusatia, in spite of the utmost efforts of the generals Haddick and Marshal who were placed there to oppose him; and, entering Silesia on the 2nd of December, joined the prince of Bevern's corps, who repassed the Oder to meet him. The garrison of Schweidnitz, who, as we have already observed, had been made prisoners of war, also joined the king's army unexpectedly; and their presence contributed not a little, notwithstanding the smallness of their number, to raise the spirits of the whole army. They had submitted to the capitulation with the greatest reluctance; but as the Austrians were conducting them to prison, they happened to receive intelligence of the victory at Rosbach: on which they immediately rose on the escort that conducted them, and entirely dispersed it; and afterwards marched in such a direction as they thought might most readily lead them to their king, they accidentally fell in with his army.

His Prussian majesty now approached Breslau; on which the Austrians, confiding in their superiority, for they exceeded 70,000, while the Prussians scarcely amounted to 36,000, abandoned their strong camp, the same which the prince of Bevern had formerly occupied, and advanced to give him battle. The king did not intend by any means to disappoint them, but advanced on his part with the greatest celerity. The two armies met on the 5th of December, near the village of Leuthen. Count Daun made the best dispositions possible. The ground occupied by his army was a plain, with small eminences in some parts. These eminences they surrounded with artillery; and as the ground was also interspersed with thickets, they sought to turn these likewise to their advantage. On their right and left were hills, on which they planted batteries of cannon. The ground in their front was intersected by many causeways; and to make the whole more impracticable, the Austrians had felled a great number of trees, and scattered them in the way. It was almost impossible, at the beginning of the engagement, for the Prussian cavalry to act, on account of these impediments; but, by a judicious disposition made by the king himself, all difficulties were overcome. His majesty had placed four battalions behind the cavalry of his right wing; foreseeing that general Nadasti, who was placed on the enemy's left with a corps de reserve, designed to attack him in flank. It happened as he had foreseen; that general's cavalry attacked the Prussian right wing with great fury; but he was received with such a severe fire

from the four battalions, that he was obliged to retire in disorder. The king's flank then, well covered and supported, was enabled to act with such order and vigour, as repulsed the enemy. The Austrian artillery was also silenced by that of the Prussians; however, the Austrians continued to make a gallant resistance during the whole battle. After having been once thrown into disorder, they rallied their forces about Leuthen, which was defended on every side by entrenchments and redoubts. The Prussians attacked them with the utmost impetuosity, and at last became masters of the post; on which the enemy fled on all sides, and a total rout ensued. In this battle, the Austrians lost 6,000 killed on the spot, 15,000 were taken prisoners, and upwards of 200 pieces of cannon.

The consequences of thisv ictory were very great. Breslau was immediately invested, and surrendered on December 29th; the garrison, amounting to 13,000 men, were made prisoners of war. The blockade of Schweidnitz was formed as closely as the season of the year would permit; while detached Prussian parties over-ran the whole country of Silesia, and reduced every place of less importance. The Russians, who had ravaged and destroyed the country in such a manner, that they could not subsist in it, thought proper to retire out of the Prussian dominions altogether. Thus general Lehwald was left at liberty to act against the Swedes; and them he quickly drove out of Prussian Pomerania, the whole of which country he not only recovered, but also some part of Swedish Pomerania. Thus the duchy of Mecklenburg, being left quite exposed, the king took ample vengeance on it, by exacting the most severe contributions of men and money. To complete this monarch's good fortune, also, the French, who had retired after the battle of Rosbach, were now opposed by the Hanoverians under prince Ferdinand, who kept them so well employed, that during the rest of the war, the king of Prussia had no more trouble from them.

The beginning of the year 1758, was favourable to the arms of his Prussian majesty. On the 3rd of April, he commenced his operations against Schweidnitz, and pushed the siege so vigorously, that the place surrendered in 13 days. He then disposed his forces in such a manner, as might best guard his dominions against his numerous enemies. For this purpose, count Dohna commanded a body of troops on the side of Pomerania; another considerable body was posted between Wohlau and Glogau, in order to cover Silesia from the Russians, in case they should make their inroad that way An army, in a little time after, was formed in Saxony, commanded by the king's brother, prince Henry. This army consisted of 30 battalions and 45 squadrons, and was designed to make head against the army of the empire; which, by great efforts made during the winter, and the junction of a large body of Austrians, was again in condition to act. Between all these armies, a ready communication was kept up by a proper choice of posts. After the reduction of Schweidnitz, the king having made a shew of invading Bohemia, sudddenly burst into Moravia, where, in a short time, he made himself master of the whole country, and on the 27th of May, laid siege to Olmutz, the capital. Of this M. Daun was no sooner informed, than he took his route to Moravia, through Bohemia; and, though he was not in a condition to risk a battle, nor indeed

would have done so unless he had had a considerable advantage ; yet, by placing himself in a strong situation where he could not be attacked, by harassing the king's troops and cutting off their convoys, he at last obliged him to abandon the enterprize. The king, however, who frequently owed a good part of his success to the impenetrable secrecy with which he covered all his designs, gave not the least hint of his intention to raise the siege of Olmutz. On the contrary, the very day before the siege was raised, the firing continued as brisk as ever ; but in the night, July 1st, the whole army took the road to Bohemia in two columns, and gained an entire march upon the Austrians. Thus, notwithstanding the utmost efforts of his enemies, the Prussian army reached Bohemia with very little molestation. Here he siezed upon a large magazine at Lieutomissel ; defeated some corps of Austrians who had attempted to interrupt his progress ; and arrived at Konigsgratz, of which he took possession, after driving from it 7000 Austrians who were intrenched there. This city and several other districts he laid under contribution ; but soon after entered Silesia, and marched with the utmost rapidity to encounter the Russians, who had at that time united their forces under generals Brown and Fermor, entered the New Marche of Brandenburg, and laid siege to Custrin.

The king arrived at this city at a very critical period. The Russians had laid siege to it on the 15th of August ; and though they were not well skilled in managing artillery, yet, by furious and unremitting discharges at random, they threw such a number of bombs and red-hot balls, that the town was soon on fire in every quarter. Some of the wretched inhabitants were burned ; others buried in the ruins of their houses, or killed by the balls which fell like hail in the streets ; while many of their survivors abandoned their habitations, and fled out of the town on that side where it was not invested. The governor did every thing for the defence of the place ; but as the walls were built after the old manner, it was impossible that the town could have made a defence for any length of time, especially as the principal magazine of the besieged had been blown up. The avenger of all these injuries, however, was now at hand. The king came in sight of the Russians on the 25th of August, after a march of 56 days, and beheld the country every where desolated, and the villages in flames by the depredations of his cruel enemy, who had raised the siege at his approach, and retired towards a neighbouring village called Zorndorff.

At nine o'clock in the morning, a most terrible fire of cannon and mortars poured destruction on the right wing of the Russian army for two hours without intermission. The slaughter was such as might have been expected : but the Russians kept their ground with astonishing resolution ; new regiments still pressing forward to supply the places of those that fell. When the first line had fired away all their charges, they rushed forward on the Prussians with their bayonets ; and all at once these brave troops, though encouraged by the presence of their king, gave way and fled before an enemy already half defeated. The Russian generals ought now to have attacked with their cavalry the disordered infantry of their enemies, which would have completed the defeat, and, in all probability, given the finishing stroke to the king of Prussia's affairs.

This opportunity, however, they lost; but the king was not so negligent; for by a very rapid and masterly motion, he brought all the cavalry of his right wing to the centre, and, falling on the Russian foot uncovered by their horse, and even disordered by their own success, they pushed them back with most miserable slaughter; at the same time that the repulsed battalions of infantry, returning to the charge, and exasperated at their late disgrace, rendered the victory no longer doubtful. The Russians were now thrown into the most dreadful confusion. The wind blew the dust and the smoke into their faces, so that they could not distinguish friends from foes; they fired on each other, plundered their own baggage which stood between the lines, and intoxicated themselves with brandy: the ranks fell in upon one another; and, being thus crammed together into a narrow space, the fire of the Prussians had a full and dreadful effect, while their enemies kept up only a scattered and ineffectual fire, generally quite over their heads. Yet even in this dismal situation the Russians did not fly; but suffered themselves to be slaughtered till seven at night, when their generals having caused an attack to be made on the Prussian right wing, the attention of the enemy was drawn to that quarter, and they had time to retire a little from the field of battle to recover their order.

In this engagement, which was called the battle of Zorndorff, the Russians lost 21,529 men, while that of the Prussians did not exceed 2000. A vast train of artillery was taken, together with the military chest, and many officers of high rank. The consequence was, that the Russian army retreated as far as Landsperg, on the frontiers of Poland, and the king was left at liberty to march, with his usual expedition, to the relief of prince Henry of Saxony.

The prince was at this time sorely pressed by M. Daun. As soon as the king had left Bohemia in the manner already related, M. Daun considered that it would have been to no purpose to follow him, resolved to turn his arms toward Saxony. Towards that country, therefore, he took his rout through Lusatia, by Zittau, Gorlitz, and Bautzen. On the 3rd of September he invested the strong fortress of Sonnestein; which unaccountably surrendered, after a single day's resistance, to one of his generals, named Macguire. He then began to favour the operations of general Laudohn, who advanced through the Lower Lusatia, to the confines of Brandenburg; and, by drawing the attention of the Prussian forces which were left in Silesia to the northward of that duchy, he facilitated the progress of the generals Harsch and De Ville in the southern parts. He then proposed that prince Henry should be attacked by the army of the empire, while that of the Austrians should pass the Elbe; and, falling at the same time on the Prussians, second the attack of the imperialists, and cut off the retreat of their enemies from Dresden. The sudden appearance of the king of Prussia, however, put an end to this plan; general Laudohn abandoned all his conquests in Lower Lusatia, and retired towards M. Daun, while that general himself retired from the neighbourhood of Dresden as far as Zittau. The army of the empire only kept its ground: possessing itself of the strong post at Pirna, formerly mentioned, but did not undertake any thing. As for the Swedes, who had directed their motions by those of the Russians, they no

sooner heard of the victory of Zorndorff, than they retreated with much more expedition than they had advanced.

Thus the king of Prussia's affairs seemed to be pretty well retrieved, when by one fatal piece of negligence he was brought to the verge of ruin. M. Daun had possessed himself of an advantageous camp at Stolphen, by which he preserved a communication with the army of the empire. On the other hand, the king of Prussia having taken possession of an important post at Bautzen, extended his right wing to the village of Hochkirchen, by which he preserved a communication with his brother, prince Henry, protected Brandenburg, and was better situated than he could be any where else for throwing succours into Silesia. The two armies kept a watchful eye on the motions of each other; and as the principal aim of M. Daun was to cut off the king's communication with Silesia, and of the king to cut off M. Daun's communication with Bohemia, a battle seemed inevitable, though great danger seemed to await that party who should begin the attack.

In this critical posture of affairs, the Austrian general formed a design of attacking the Prussian camp in the night. In what manner he came to surprize such a vigilant enemy, has never been accounted for; but that such a surprize was actually accomplished, on the 14th of October, is certain. In the dead of the preceding night, the Austrian army began to march in three columns towards the camp of the king of Prussia; and though the night was exceeding dark, and they had a considerable way to go, they all arrived at the same time, in safety, without being discovered, and without the least confusion; and at five in the morning began a regular and well-conducted attack. The Prussians were in a moment thrown into confusion; marshal Keith, one of their best generals, received two musket-balls, and fell dead on the spot. Prince Francis of Brunswick had his head shot off by a cannon-ball as he was mounting his horse; and every thing seemed to announce the total destruction of the army. Still, however, the king preserved his wonderful presence of mind, which, indeed, he never appears to have lost on any occasion. He ordered some detachments from his left to support his right wing; but the moment these orders were received, the left itself was furiously attacked. General Ketzow, who commanded in that quarter, repulsed the Austrians with difficulty, and was not able to afford any considerable assistance to the right; which alone was obliged to sustain the weight of the grand attack. The Austrians, in the beginning of the engagement, had driven the Prussians out of the village of Hochkirchen; and as the fate of the day depended on the possession of that post, the hottest dispute was there. The Prussians made three bloody and unsuccessful attacks on the village; on the fourth they carried it; but the Austrians, continually pouring in fresh troops, at last drove them out with prodigious slaughter on all sides. The king then ordered a retreat, which was conducted in good order, without being pursued; however, this bloody action cost him 7000 men, together with a great number of cannon. The Austrians computed their own loss at 5000.

His Prussian majesty, having thus happily escaped such imminent danger, took every possible measure to prevent the enemy from gaining any considerable advantage from

his defeat. Perceiving that the only advantage they wished to derive from it was to cover the operations of their armies in Silesia, and that he had now nothing to fear on the side of Saxony, he largely reinforced his own army from that of prince Henry, and hastened into Silesia, in order to raise the siege of Neiss, which had been completely invested on the 4th of October. On the 24th of that month, therefore, he quitted his camp; and, making a great compass, to avoid obstruction from the enemy, arrived at the plains of Gorlitz. A body of the Austrians had in vain attempted to secure this post before him, and some who arrived after him were defeated with the loss of 800 men. From this place the king pursued his march with the utmost diligence; but was followed by general Laudohn, at the head of 24,000; who constantly being on his rear, harassed his army. The king, however, knowing the importance of his expedition, continued his march without interruption, and suffered his antagonist to obtain many little advantages without molestation. Daun, however, not content with the opposition given by Laudohn, sent a large body of horse and foot, by another route, to reinforce the generals Harsch and de Ville, who had formed the siege of Neiss and the blockade of Cosel, while he himself passed the Elbe, and advanced towards Dresden.

All these precautions, however, were of little avail. The generals Harsch and de Ville, notwithstanding their reinforcements, no sooner heard of the king of Prussia's approach, than they raised the siege of both places, and retired, leaving behind them a considerable quantity of military stores. The end of the Prussian monarch's march being thus accomplished, he instantly returned by the same way he came, and hastened to the relief of Saxony, the capital of which (Dresden) was in great danger from marshal Daun. The place was but indifferently fortified, and garrisoned only by 12,000 men; so that it could not promise to hold out long against a numerous and well-appointed army. It was besides commanded by a large suburb, of which, if once the enemy got possession, all defence of the city must then be vain. For this reason M. Schmettau, the Prussian governor, determined to set these suburbs on fire, which was actually done November 10th, with an incredible loss to the inhabitants, as in the suburbs were carried on most of those valuable manufactures which rendered the city of Dresden remarkable. This disappointed the designs of Daun; but, though the action was agreeable to the laws of war, and had been executed with all the caution and humanity of which such an action was capable, yet the Austrians exclaimed against it as a piece of the most unprovoked and wanton cruelty recorded in history.

After the king of Prussia had approached Dresden, all the Austrian army retired into Bohemia, where they took up their winter quarters, as the king of Prussia did in Saxony. This unhappy country, he said, he would now consider as his own by right of conquest. But instead of treating the conquered people as his lawful subjects, he oppressed them in all possible ways, by levying the most severe and exorbitant contributions, surrounding the exchange with soldiers, and confining the merchants in narrow lodgings on straw beds, till they drew upon their correspondents for such sums as he wanted.

in 1759, as early as the 23rd of February, the Prussians commenced their military operations. General Wobersow marched with a body of troops into Poland, where he destroyed several very large magazines belonging to the Russians, and returned into Silesia without any loss, on the 18th of April. In the mean time, by some movements of the king of Prussia himself, the greatest part of the Austrian troops had been drawn towards the frontiers for Silesia. Prince Henry immediately took advantage of this opening, and on the 15th of April entered Bohemia with his army divided into two columns. One, commanded by himself, marched towards Peterswade; the other, under general Hulsen, passed by the towns of Pasberg and Commotau. That commanded by prince Henry himself penetrated as far as Loboschutz and Leitmeritz; the enemy flying every where before them, and burning or abandoning the vast magazines which they had amassed in these parts. The body under general Hulsen had a more active employment. A strong pass at Pasberg was defended by a considerable body of Austrians. General Hulsen having conducted his cavalry by another way in such a manner as to fall directly on the rear, attacked them in front with his infantry, drove them out of their entrenchments, and totally defeated them, with the loss of a great number killed and 2000 taken prisoners, while that of the Prussians did not exceed 70 in killed and wounded. After this exploit they returned into Saxony, with hostages for the contributions which they had largely exacted during the course of their expedition.

Some other successes obtained by prince Henry, cleared the country of Franconia of his enemies; but now the approach of the Russians seemed once more to bring the affairs of the king of Prussia to a crisis. Notwithstanding the destruction of their magazines, they had continued to advance into Silesia, where they were opposed by count Dohna; but as the troops he had with him were very far inferior to his enemies, he found it impossible to do more, at least with an appearance of success, than to observe their motions and harass them on their march. But this was so displeasing to the king, that he disgraced this general, and appointed Wedel to succeed him, with orders to attack the Russians at all events. To enable him, however, in some measure to comply with this desperate order, he sent him some reinforcements, which brought his army up to near 30,000. With these, on the 23rd of July, 1759, general Wedel attacked 70,000 Russians posted in the most advantageous manner at Zulichau, and defended by a numerous artillery. Though the Prussians marched on to certain destruction and disgrace, they sustained the attack for a long time with unparalleled resolution. At last, however, they gave way, and were obliged to retire with the loss of 4,700 killed or taken prisoners and 3000 wounded.

The consequences of this victory were, that the Russians penetrated into the king's territories and took possession of the towns of Crossen, and Frankfort, on the Oder, which made it necessary for the king to come in person to oppose them. Accordingly on the 4th of August he joined Wedel with a considerable body of forces, having left the greatest part of his army in Saxony under prince Henry. But as marshal Daun had sent a body of 12,000 horse and 8000 foot under general Laudohn to the assistance of the Russians, the king still found himself unable to fight them; as, with this and some-

other reinforcements, their army amounted to upwards of 90,000. He therefore recalled general Finck, whom he had sent into Saxony with 9000 men; but with all his reinforcements, it was found impossible to augment his army to 50,000 complete. His situation, however, was now so critical, that a battle was unavoidable; and therefore on the 12th of August, with this inferiority of number, the king attacked his enemies strongly entrenched, and defended by a prodigious number of cannon. In this action, his principal effort was against the left wing of the Russian army. He began the attack, according to custom, with a heavy cannonade; which, having produced the desired effect, he attacked that wing with several battalions disposed in columns. The Russian entrenchments were forced with great slaughter, and 72 pieces of cannon were taken. But still there was a defile to be passed, and several redoubts which covered the village of Cunnersdorff to be mastered. These were attackod with the same resolution, and taken one after another. The enemy made another stand at the village, and endeavoured to preserve the ground there by pushing forward several battalions of horse and foot; but this also proved unsuccessful; they were driven from post to post, quite to the last redoubt. For upwards of six hours the Prussians were successful, and every where broke the enemy with prodigious slaughter; drove them from almost all the ground they had occupied before the battle, took more than half their artillery, and scarce any thing seemed wanting to make the victory complete. In these circumstances, the king wrote the following billet to the queen. "Madam, we have beat the Russians from their entrenchments. In two hours expect to hear of a glorious victory." Of this victory, however, he deprived himself, by an excessive eagerness for conquest. The enemy, defeated almost in every quarter, found their left wing, shattered as it was, to be more entire than any other part of their army. Count Soltikoff, the Russian general, therefore, assembled the remains of his right wing; and gathering as many as he could from his centre, reinforced the left, and made a stand at a redoubt which had been erected on an advantageous eminence in a place called the Jews' burying-ground. All the king's generals are said to have been of opinion, that he ought to allow the Russians the peaceable possession of this post. Their army had already suffered so much, that it would have been impossible for them to have attempted any enterprize of consequence after the battle; but their artillery was still numerous, the post very strong, and the Prussian troops greatly fatigued. These reasons for a few moments had some weight with the king: but the natural impetuosity of his temper getting the better of his reason, he led on his wearied troops again and again; till at last, when their strength was in a manner totally exhausted, they were attacked and utterly routed by the Austrian and Russian cavalry, the former of which had hitherto remained quite inactive, and were therefore quite fresh, and irresistible by the enfeebled Prussians. The night, and prudent use of some eminences, prevented the total destruction of the army: however, their loss amounted to 20,000 men killed and wounded. The king, when he found the victory totally lost, sent another billet to the queen expressed in the following manner: "Remove from Berlin with the royal family; let the archives be carried to Potsdam; the town may make conditions with the enemy.

Immediately after this defeat, the king set himself about repairing his losses with the utmost diligence. In a few days, every thing was again put in order in his camp. He replaced his artillery from Berlin; recalled general Kliest with 5000 men from Pomerania; detached 6000 from his own army to the defence of Saxony; and with the remainder put himself between the Russians and Great Glogau, covering that city which had been the chief object of their designs; and, in short, notwithstanding their victory, obliged them to return to Poland, without accomplishing any thing besides the carnage at Cunnersdorff.

The misfortunes of the Prussian monarch, however, were not at an end. Prince Henry, indeed, by a most extraordinary and well-conducted march, entered Saxony, which was now totally over-ran by the armies of the enemy. At the same time, strong detachments having been sent into that country under generals Finck and Wunsch, the whole was in a short time recovered, except Dresden. Towards this place marshal Daun retired, and, in all probability, would soon have been obliged to leave Saxony entirely. But the king's impatience could not be satisfied without cutting off his retreat, and forcing him to a battle; for which purpose, he sent general Finck with upwards of 12,000 men according to the Prussian account, but 20,000 according to the Austrians, to seize some passes through which M. Daun could only take his route towards Bohemia. This commission was executed with great exactness; but the Prussian general, having probably advanced too far into these defiles, and neglected to preserve a communication with the main army, gave his enemy an opportunity of surrounding him, and at last forced him and his whole army to surrender prisoners of war. This disaster was soon after followed by another. General Durceke was posted at the right of the Elbe, opposite to Messen; but on the approach of a large body of Austrians, they prepared to retreat over the river into a place where they hoped to be more secure. But having been obliged, by a hard frost, to withdraw their bridge of boats, a thaw supervened, when they attempted to lay a bridge of pontoons, so that they were again obliged to have recourse to their boats. In this situation, their rear guard was attacked with great fury by the Austrians, and all the soldiers who composed it killed or taken. The loss of the Prussians on this occasion was computed at 3000 men.

The year 1760, showed the Prussian monarch in a more dangerous situation than he had ever yet experienced. Indeed his affairs now seemed to be altogether desperate. His losses were not to be measured by the number of killed or prisoners, but by armies destroyed and taken. Forty generals had died or been killed in his service since the beginning of October, 1756, exclusive of those who were wounded or taken prisoners. This of itself would have been an irreparable loss, had not the very wars which destroyed these, furnished others equally capable of filling their places. But another deficiency, which could not be remedied, still remained.

The king had, by his indefatigable industry and exertions, supplied all the deficiencies of men in his armies, but they were not the same men as before. The hardy veterans, with whom he had originally taken the field, were now no more, and their places were

supplied by others who had neither the same experience nor discipline; so that now he was obliged to supply this deficiency by his own genius and heroism.

But whatever abilities the Prussian monarch might possess, and though he undoubtedly exerted them to the utmost, it seeming only to be contending against fate, and his enemies gained still greater and greater advantages. General Laudohn with whom none but the king himself seems to have been able to cope, by a series of artful movements, drew into a disadvantageous situation M. Fouquet, one of the Prussian generals, with a strong body of forces. Perceiving it impossible for them to escape, Laudohn then made a violent attack on their entrenchments in the dead of the night of June 23rd. The Prussians made a gallant defence, but at last were all killed or taken prisoners except about 300. Of the Prussians were killed 4000, and 7000 taken prisoners; 58 pieces of cannon, and a great number of colours, were also lost. This victory, however, was dear bought; for the Austrians lost above 12,000 men in killed and wounded; whom, however, they could better spare than the Prussians, on account of their numbers. This action was called the battle of Landshut.

Baron Laudohn failed not to improve this victory to the utmost. He instantly turned back from Landshut, and fell upon the city of Glatz, which he took in a very short time, with the garrison who defended it, consisting of 2000 men. In this place were found 101 pieces of brass cannon, with immense quantities of provisions and military stores. From thence he marched against Breslau, and immediately invested it. But, in the mean time, the king of Prussia, whose motions had been all this time counteracted by M. Daun in Saxony, marched with his usual rapidity towards Silesia. By this means he drew M. Daun out of Saxony; and indeed the Austrian general used such expedition, that he gained two full days on the king. This was no sooner known to his Prussian majesty, than he returned with the same expedition that he had advanced, and sat down before Dresden. Of this M. Daun soon received intelligence, and returned also. In the mean time, however, the buildings of the city were terribly shattered by the king's cannon and bombs which continually played upon it. His endeavours, however, proved ineffectual to reduce it before the arrival of M. Daun. The siege had been begun on the 13th of July and on the 19th M. Daun appeared within a league of Dresden. The Prussians then redoubled their efforts. They had that day received reinforcements of heavy cannon and mortars, with which they battered the place incessantly. The cathedral church, New Square, several principal streets, and some palaces, and the noble manufactory of porcelain, were entirely destroyed. The siege was continued till the 22nd: but on the night of the 21st M. Daun had thrown 16 battalions into the city; which rendered it impossible for the king to continue longer before it with any prospect of success. He therefore raised the siege, and retired without molestation, though there were three considerable armies of the enemy in the neighbourhood. Breslau was fiercely bombarded by Laudohn, but the approach of prince Henry obliged him to desist from his enterprize to the 5th of August.

But, in the mean time, the fortune of the king seemed likely to be terminated by one

fatal stroke. Finding it impossible for him to carry on a defensive war, he marched towards Silesia with such astonishing rapidity, that before the middle of August he had advanced 200 miles, leaving Marshal Daun with his army far behind him. This expedition he undertook in order to engage general Laudohn before he could have time to effect a junction with Daun and Lacy, another Austrian general; which triple union seemed to threaten him with unavoidable destruction at once. This, however, he found it impossible to prevent: and the three armies, when joined, formed a most tremendous line of encampments, extending no less than 30 English miles; at the same time every one of their posts was strong, and the communication between them easy. The king was strongly encamped at Lignitz; and for several days employed all his military skill in attempting to induce one of the bodies to detach itself from the rest, or to attack them at some disadvantage; but without effect. At last, the Austrian generals, having maturely weighed all circumstances, resolved to attack the king's camp itself strong as it was; and Marshal Daun, remembering the advantage he had gained at Hochkirchen by an attack in the night-time, resolved to follow the same plan now. The plan therefore was laid in the following manner. The whole army, as soon as it should begin to grow dark, was to march from their several posts to such situations as were marked out for each corps: they were to strike their tents, but yet to keep up the fires in their camps, and to have the drums beat the tattoo as usual, by which means they had a probability of surprising the enemy; or if not they judged it absolutely impossible to escape them; though he should be ever so much on his guard. In what manner the king of Prussia became acquainted with this plan is not known. His friends attribute it to his own penetration and knowledge of the stratagems of war; the Austrians to intelligence given him by deserters. But, in whatever way he became acquainted with this design, it is certain that he took the most effectual methods to prevent it.

As the Austrian plan was to surround the camp: and this could not be done without the division of their army he had so long desired, he resolved to intercept one of their parties; and if that should be disabled from acting, he could then more easily deal with the other two. Therefore, in the very evening calculated for the decisive attack on his camp, he quitted it with the utmost privacy, and took an advantageous post on the road through which general Laudohn was to pass. The nature of this post was such that at the time that it stopped the progress of Laudohn in front, Daun would lie under great difficulties if he should attempt his rear; at the same time that, for his further security, the king strengthened his rear with several batteries. As soon as his army was drawn up, he divided it; leaving his right on the ground where it had be formed, to observe marshal Daun, and to maintain the post; whilst with his l-- he turned in order to fall on the corps under general Laudohn. In the mean ti--, that commander, ignorant of the fate which was waiting him, advanced with the utmost expedition towards the place which had been assigned him, in order to shar- in the glory of destroying the Prussian monarch; when at three in the morning on the 15th of August, a thick fog which covered the ground, suddenly clearing u-, discovered, like the opening of a great scene, the dreadful front of the Prussian army regularly embat-

tled, and advantageously posted. Laudohn, though surprised, made the best dispositions that circumstances would admit of, and an obstinate engagement ensued; in which, however, he was at last obliged to yield to the superior skill of his adversary, with the loss of 10,000 killed, wounded, and prisoners, 82 pieces of cannon, and 23 pair of colours.

The victory, though complete, gave but a partial relief to the king of Prussia. The most essential service it did was the preventing of the Russians from joining those enemies which he already had. Czernichew had been advancing with 24,000 men, and had even passed the Oder; but was so intimidated by this news, that he instantly repassed that river on the same bridges which he had lately built, even though M. Daun sent him a strong body of troops in order to encourage him to advance. Soon after this battle, the king joined his brother, prince Henry, at New Marche; and marched against Daun, who had begun to form the blockade of Schweidnitz, fell upon a corps under general Beck, made two battalions of Croats prisoners, and dispersed the rest, which obliged the enemy to abandon the enterprize they had just undertaken. About the same time, general Hulsen gained a considerable advantage over the imperial army in Saxony, with very trifling loss on his part, by which he effectually prevented them from cutting off his communication with the city of Torgau.

By these successes the affairs of his Prussian majesty seemed to revive: but there was no end of his enemies. The late manœuvres had drawn him so far into Silesia, that his communication with Brandenburg was almost wholly cut off. The Russian army, which, after it had repassed the Oder, began to move out of Silesia, sent forward a powerful detachment, under count Czernichew, towards the Marche of Brandenburg. A body of 15,000 Austrians, under the generals Lacy and Brentans, and the whole united body of Austrians and imperialists which acted in Saxony, began their march in concert with the Russians, and proposed to unite at the gates of Berlin. These armies amounted to 40,000 men. To oppose this formidable power, general Hulsen called to his assistance general Wernen, who had been sent with a body of troops into Pomerania; but, after being joined by him, their united forces were found not to exceed 15 or 16,000 men. To attempt a defence of the capital with this force would have been little short of madness; and therefore these commanders were obliged to leave Berlin to its fate; which, indeed, considering the barbarity of the Russians and the animosity of the Austrians, seemed to be a dreadful one. However, by the powerful mediation of several foreign ministers, the town obtained terms which were not altogether intolerable; but the magazines, arsenals, and foundries, were destroyed, and an immense quantity of military stores seized, with a number of cannon and other arms. The city was first obliged to pay 800,000 guilders, after which a contribution of 1,900,000 crowns was laid on; yet, notwithstanding this, many violences were committed, and the king's palace was plundered, and the furniture abused in a scandalous manner.

The combined armies staid in Berlin only four days; dreading the severe vengeance of the king of Prussia, who they heard was advancing towards that place with great

expedition. But so great were the embarrassments which now attended that monarch that it seemed absolutely beyond human power to retrieve his affairs. The imperialists, on their return from Berlin, having no army to oppose them, made themselves masters of Leipsic, Torgau, Meissen, and Wirtemberg; in which large city they found the grand magazine of the Prussians immensely stored with provisions, ammunition, &c. M. Stainville also, with a detachment from Broglio, the French general's army, laid the city and duchy of Halberstadt under contribution. In Eastern Pomerania, the Russians had besieged Colberg by sea and land. In the Western Pomerania, the Swedes advanced with great celerity, hoping to share in the plunder of Berlin. In Silesia, the king no sooner began his march to the northward, than Laudohn advanced, and laid siege to the important fortress of Cosel ; and, to complete his distress and embarrassment, the king himself was attended at every step by count Daun, with a superior army, well prepared to take every advantage.

In this desperate situation, the king, being joined by his generals Hulsen and prince Eugene of Wirtemberg with the corps under their command, advanced up the Elbe, while M. Daun fell back to cover Leipsic and Torgau, but the latter finding that the Prussians directed their march towards the Elbe, encamped within reach of Torgau ; one part of his army extending to the Elbe, by which he was covered on that side, whilst on the other, he was covered by hills and woods, so that it was impossible to choose a more advantageous situation. The Prussian army did not amount to 50,000 men, whilst that of the Austrians exceeded 86,000 ; yet such were the unfortunate circumstances of the king, that he was obliged to fight under all these disadvantages ; and therefore caused his army to be informed that he was now to lead them to a most desperate attempt, that his affairs required it, and that he was determined to conquer or die. His soldiers unanimously declared they would die with him.

The 3rd of November, 1760, was the day on which this important affair was decided. The king divided his forces into three columns. General Hulsen was to take post with one in a wood that lay on the left of the Austrian army, and had orders not to move until he found the rest of the Prussians engaged. General Ziethen was to charge on the right ; and the great attack in front was to be conducted by the king in person. His forces were disposed in such a manner, that either his right or left must take the enemy in the rear and close them in, so as to disable them from undertaking any thing against the part where he intended to effect his principal attack. On the other hand, M. Daun, perceiving the king to be serious in his design of fighting, to prev. confusion, sent all his baggage over the Elbe, across which he threw three brid in case a retreat should be necessary. At the same time, he caused Torgau to b evacuated : and then, extending his first line to a village called Zinne on the left, h stretched it to another called Croswitz on the right; supporting the right of h second line upon the Elbe. In this disposition he was found, when, about two o'c k in the afternoon, the king began his attack. He was received by the fire of 200 ieces of cannon, which were disposed along the Austrian front. The Prussians w o thrice led on to the attack ; but were every time repulsed and broken with rrible slaughter. The

king at length commanded a fresh body of cavalry to advance, which at first compelled the Austrians to retire; but new reinforcements continually coming in, this cavalry was in its turn obliged to fall back, and the Prussians maintained themselves with difficulty, until general Ziethen, with the right wing, attacked the enemy in the rear, repulsed them, and possessed himself of some of the eminences which commanded the whole Austrian army. Encouraged by this success, the Prussian infantry once more advanced, mastered several of the enemy's entrenchments, and made way for a new attack by their cavalry, which broke in with irresistible fury on the Austrians, and threw several bodies of them into irreparable disorder. It was now about nine o'clock, and of consequence both armies were involved in thick darkness; yet the fire continued without intermission, and the battalions, with a blind rage, discharged at one another without distinguishing friend from foe. M. Daun received a dangerous wound in his thigh, and was carried from the field, which probably hastened the defeat of his troops. The command then devolved on count O'Donnell; who, finding the greatest part of his troops in disorder, the night advanced, and the enemy possessed of some eminences which commanded his camp, and from which it was in vain to think of driving them, ordered a retreat, which was conducted with wonderful order and exactness; none were lost in passing the bridges, and by far the greater part of their artillery was preserved. The loss of the Prussians was estimated at 10,000 killed and wounded, and 3000 taken prisoners. That of the Austrians in killed and wounded is not known; but 8000 were taken prisoners, with 216 officers, among whom were four generals.

The consequences of the victory at Torgau was, that the king recovered all Saxony except Dresden; and, in the mean time, general Werner having marched into Pomerania, the Russians raised the siege of Colberg, and retired into Poland, without having effected any thing further than wasting the open country.

Werner then flew to the assistance of Western Pomerania, where he defeated a body of Swedes, and at last drove them totally out of the country. General Laudohn too, abruptly raised the blockade of Cosel; and afterwards, abandoning Landshut, retired into the Austrian Silesia, leaving the Prussian part entirely in quiet. M. Daun placed one part of his army in Dresden, and the other in some strong posts which lie to the south and west of it, by which he commanded the Elbe, and preserved his communication with Bohemia. The army of the empire retired into Franconia, and placed his head-quarters at Bamberg.

Though these successes had, to appearances, retrieved the king's affairs in some measure, yet his strength seemed to be wholly exhausted; and in the campaign of 1761, he made no such vigorous efforts as he had formerly done. The Russians divided themselves into two bodies, invaded Silesia and Pomerania. In the former country they laid siege to Breslau, and in the latter to Colberg. Tottleben also, who had commanded the Russian armies, was now removed on suspicion that he had corresponded with the king of Prussia, and general Romanzow put in his place; by which it was expected that the Russian operations would be more brisk this year than formerly.

The king continued strongly encamped near Schweidnitz; where he was so closely watched by generals Daun and Laudohn, that he could attempt nothing. However, he defeated the designs of the Russians against Breslau, by sending general Platen to destroy their magazines; which he accomplished with great success, at the same time cutting off a body of 4000 of their troops. But this only brought the more sure destruction upon Colberg; to which place that body of Russians immediately marched, cruelly wasting the country as they went along. The king of Prussia could do nothing but send detachments of small parties, which, though they could not oppose their enemies in the field, yet he hoped, by cutting off the convoys of the enemy, might distress them to such a degree as to oblige them to abandon the siege, or at least protract it till the severity of the winter should render it impossible for them to carry on their operations. Thus he weakened his own army so much, that it was found requisite to draw 4000 men out of Schweidnitz, in order to reinforce it; and no sooner was this done, than general Laudohn suddenly attacked and took that fortress by a coup de main. Colberg made a brave defence; but the troops sent to its relief being totally unable to cope with the Russian army, consisting of 50,000 men, it was obliged to surrender on the 3rd of December; and thus the fate of the Prussian monarch seemed to be decided, and almost every part of his dominions lay open to the invaders.

In the midst of these gloomy appearances, the empress of Russia, the king's most inveterate and inflexible enemy, died on the 2nd of January, 1762. Her successor, Peter III. instead of being the king's enemy, was his most sanguine friend. As early as the 23rd of February, in a memorial delivered to the ministers of the allied courts, he declared, that, " in order to the establishment of peace, he was ready to sacrifice all the conquests made during this war by the arms of Russia, in hopes that the allied courts will, on their parts, equally prefer the restoration of peace and tranquillity, to the advantages which they might expect from the continuance of the war, but which they cannot obtain but by a continuance of the effusion of human blood."

This address was not so well relished by the allies; however, they were very willing to make peace, provided it was for their own interest; but they recommended to his attention fidelity to treaties, which constitutes a no less valuable part of the royal character, than humanity and disinterestedness. The answer made no impression on the czar; a suspension of hostilities took place on the 16th of March, which was followed by a treaty of alliance on the 5th of May. In this treaty, the czar stipulated nothing in favour of his former confederates; on the contrary, he agreed to join his troops to those of the king of Prussia, in order to act against them. Sweden, which had, for a long time, acted under the direction of Russian counsels, now followed the example of her mistress, and concluded a peace with Prussia on the 22nd of May.

It is not to be supposed the king of Prussia would remain long inactive after such an unexpected turn in his favour. His arms were now every where attended with success. Prince Henry drove the imperialists from some important posts in Saxony, by which he secured all that part which the Prussians possessed; and though the Austrians frequently attempted to recover these posts, they were constantly repulsed with great

slaughter. The king was not joined by his new allies till the latter end of June; after which he drove M. Daun before him to the extremity of Silesia, leaving the town of Schweidnitz entirely uncovered, and which the king immediately prepared to invest. In the mean time, different detachments of Prussians, some on the side of Saxony, and others on that of Silesia, penetrated deep into Bohemia, laid many parts of the country under contribution, and spread an universal alarm. A considerable body of Russian irregulars also made an irruption into Bohemia, where they practised on the Austrians the same cruelties which they had long been accustomed to practise on the Prussians.

But while the king was thus making the best use of his time, he was all at once threatened with a fatal reverse of fortune by a new revolution in Russia. The emperor was deposed, and his deposition was soon after followed by his death. The empress, who succeeded him, suspected that her husband had been misled by the counsels of his Prussian majesty, against whom, therefore, she entertained a mortal enmity. She could not, however, in the very beginning of her reign, undertake again a war of so much importance as that which had been just concluded. She therefore declared her intention of observing the peace concluded by the late emperor; but, at the same time, of recalling her armies from Silesia, Prussia, and Pomerania; which, indeed, the unsettled state of the kingdom now made in some degree necessary. At the same time, a discovery was made with regard to the king of Prussia himself, which turned the scale greatly in his favour.

The Russian senate, flaming with resentment against this monarch, and against their late unfortunate sovereign; and the empress, full of suspicions that the conduct of the latter might have been influenced by the councils of the former, searched eagerly amongst the papers of the late emperor for an elucidation or proofs of this point. They found indeed many letters from the Prussian monarch; but in a strain absolutely different from what they had expected. The king had as far as prudence would permit, kept a reserve and distance with regard to the too rash advances of this unhappy ally; and in particular, counselled him to undertake nothing against the empress his consort. The hearing of these letters read, is said to have had such an effect upon the empress, that she burst into tears, and expressed her gratitude towards the Prussian monarch in the warmest terms. Still, however, the Russian army was ordered to separate from the Prussians; but all the important places which the former had taken during the whole war were faithfully restored.

The king, finding that the Russians were no more to take an active part in his favour, resolved to profit by their appearance in his camp; and therefore, the very day after the order for their return had arrived, he attacked the Austrian army, and drove their right wing from some eminences and villages where they were advantageously posted; by which means he entirely cut off their communication with Schweidnitz, so that nothing could be attempted for its relief. Prince Henry kept them in continual alarms for Bohemia; and a great part of their attention, and no small part of their forces were engaged on that side. Marshal Daun, now finding himself rendered almost incapable of

undertaking any thing, detached general Laudohn, with a a force much superior, to attack the prince of Bevern, and drive him from the advantageous post he occupied. But the prince defended himself with such resolution, that all the efforts of Laudohn could not succeed before the king had time to come to his assistance. The Austrians being then put between two fires, were routed and pursued with terrible slaughter; after which, the king met with no more disturbance in his preparations for the siege, and the trenches were opened on the 18th of July. Marshal Daun made no attempts to relieve the place; but the garrison being very strong, it held out near two months from the opening of the trenches. It is said that the attack was conducted, and the defence made by two engineers who had written on the subject of the attack and defence of fortified places; and they were now practically engaged to prove the superiority of their systems. At last, however, the garrison, to the number of 8000 men, surredered prisoners of war; and the whole body, except nine, were soon after drowned at the mouth of the Oder, on their passage to their intended confinement of Koningsburg.

The King of Prussia, now become master of Schweidnitz, turned his attention towards Saxony, where he considerably reinforced his brother's army, and made preparations for laying siege to Dresden. In this country the Austrians had lately met with some success, and driven prince Henry back as far as Freyberg; but on the 29th of October, they were attacked by the Prussian army, thus reinforced, and totally routed. Great numbers were slain, and near 6000 taken prisoners. This victory proved decisive: and the empress queen, finding herself deserted by all her allies, was glad to conclude a treaty; the substance of which was, that a mutual restitution and oblivion should take place, and both parties set down at the end of the war in the same situation in which they began it. This treaty was called the peace of Hubertsburg.

The vast abilities of the great Frederic were displayed almost equally in private as in public life; but unfortunately, in both instances, they conduced rather to the splendor of his reputation than to the general benefit of mankind. Being put in his infancy under the care of Val de Recoule, a French lady of great understanding, he acquired, in his early years, not only a taste for literature in general, but a predilection for the French language, which was never obliterated. He was taught the mathematics and fortification by major Senning; Han de Jendun, a Frenchman, instructed him in other branches of knowledge; a cadet of the name of Kenzel taught him the exercise.

At eight years of age he was furnished with a small arsenal, stored with all sorts of arms proportioned to his size and strength; of which his father left him fully master. In a short time, he was named captain and chief of the corps of cadets; and performed every day in miniature with his little soldiers all the evolutions of military exercise. The martial spirit which was thus diligently cherished, combined with his early devotion to literature, to make him peruse with eagerness the most valuable writings of the antients. He never spoke without enthusiasm of the great warriors of Greece and Rome; and when seated on the throne, thought he could never distinguish an able soldier in a more honourable manner than by conferring on him a Roman surname.

In the pursuit of glory, Frederic found that it was not improper to cultivate the

friendship of celebrated poets, philosophers, and others of the literary class; for which purpose he flattered, commended, and complimented, all the most celebrated literati of Europe. "The philosophers," says the author of his life, "answered him as a mad lover writes to his mistress. They wrote to him that he was a great poet, a great philosopher, the Solomon of the north. All these hyperboles were printed; and Solomon was not sorry for it, though he had too much understanding to believe them. Wolf, Rollin, Gravesande, Maupertuis, Algarotti, Voltaire, were honoured with his correspondence. The last especially, accustomed to offer up incense to the idol of the day, were it transported from the dunghill to the altar, did not fail to exalt, as the first man in the universe, a prince who was in expectancy of the throne, and who assured him that he was the greatest philosopher of the age, and the first poet in the world."

As the following account, taken from Voltaire, will give an idea of Frederic's manner of living, we shall here transcribe it; first warning the reader, that he is about to follow a very exceptionable guide.

"He rose at five in the morning in summer, and six in the winter. A lacquey came to light his fire, and dress and shave him; and, indeed, he almost wholly dressed himself. His room was not inelegant. A rich balustrade of silver, ornamented with little cupids, seemed to enclose an alcove bed, the curtains of which were visible, but behind them, instead of a bed, there was a library; the king slept on a truckle-bed with a slight mattress concealed behind a screen. Marcus Aurelius and Julian, those apostles of Stoicism, did not sleep in a more homely manner. At seven, his prime minister arrived with a great bundle of papers under his arm. This prime minister was no other than a clerk who had formerly been a soldier and valet de chambre. To him the secretaries sent all their dispatches, and he brought extracts of them, to which the king wrote answers by two words in the margin; and thus the affairs of the whole kingdom were expedited in an hour. Towards eleven the king put on his boots, reviewed his regiment of guards in the garden, and at the same hour the colonels were following his example in their respective provinces."

"The princes, his brothers, the general officers, and one or two chamberlains, dined at his table; which was as good as it could be in a country where there is neither game, tolerable butchers' meat, nor a pullet, and where the very wheat is brought from Magdeburg. After the repast, he retired alone into his cabinet, where he made verses till five or six o'clock. Then came a young man named D'Arget, formerly secretary to Valory, the French envoy, who read to him. A little concert began at seven, in which the king played on the flute with as much skill as the first performer; and pieces of his composition were frequently executed. Supper was served in a little hall, the singular and striking ornament of which was a picture, the design of which he had given to Pesne, one of our best colourists. It was a fine picture of Priapus. These repasts were not in general the less philosophic on that account. Never did men converse, in any part of the world, with so much liberty concerning the superstitions of mankind, and never were they treated with more pleasantry and contempt. God was

respected, but none of those who had deceived men in his name were spared. Neither women nor priests ever entered the palace. In a word, Frederic lived without a court, without counsel, and without religious worship."

We have only to fill up the outlines of this picture, which was intended to flatter, in order to form some conception of the moral effects of the new philosophy.

The fatigues he had suffered in his military exertions, undermined his constitution. Soon after the peace of Hubertsburg, his body began to bend, and his head to incline to the right side; by degrees he became very infirm; he was tormented with the gout, and subject to frequent indigestions. All his distempers were, however, borne with invincible patience; and till within a very short time of his death, he never ceased to attend his reviews, or visit the different provinces of his dominions. His dissolution took place on the month of August, 1786.

His nephew, who succeeded him, found himself possessed of a full treasury, a fine army, and an obedient people. He discouraged the cultivation of the French language and philosophy, to which his uncle was so violently attached. The events of his reign, and that of his successor must be postponed till we give an account of the Dutch, French, and Polish revolutions.

The emperor, Charles VII. who had been raised to the throne by the intrigues of France, died in 1745, and was succeeded by Francis I. the husband of Maria Theresa, the queen of Hungary. Their son Joseph had been crowned king of the Romans in 1764, and the next year succeeded his father as emperor. This prince shewed an active and restless disposition, which inclined him to extend his dominions by conquest; and to make reformations in his internal policy, but without taking any proper methods for accomplishing his purposes. Hence he was almost always disappointed; insomuch that he wrote for himself the following epitaph. "Here lies Joseph, unfortunate in all his undertakings."

In the year 1778, a war commenced betwixt him and the king of Prussia, in which notwithstanding the impetuous valour of that monarch, Joseph acted with such caution, that his adversary could gain no advantage over him; and an accommodation took place without any memorable exploit on either side. His foreign engagements, which will be described in our account of Holland and Turkey, did not prevent him from carrying on his reformation throughout all his dominions with a rapidity scarcely to be paralleled, and which at length produced the revolt in the Austrian Netherlands. In the course of his labours in this way, a complete code of laws were compiled. These were at first greatly commended for their humanity, as excluding almost every species of capital punishment; yet when narrowly considered, the commutations were judged by many to be so exceedingly severe, that the most cruel death would have been, comparatively speaking, an act of mercy. Even for smaller crimes the punishments were very severe; but the greatest fault of all was, that the modes of trial were defective, and the punishments so arbitrary, that the most innocent character lay at the mercy of a tyrannical judge.

The innovations in religious matters were, however, the most offensive. Among

the many changes introduced this way, the following were some of the most remarkable. 1. An abridgment of divine service. 2. A total suppression of vocal performers in choirs. 3. The introduction of the vernacular language instead of the latin in administering the sacraments. 4. The prohibition of chanting hymns in private houses. 5. The suppressions of a number of religious houses, and the reduction of the number of the clergy. 6. The total abolition of the papal supremacy throughout the imperial dominions. Many favours were also bestowed on the Jews; and in 1786, the emperor wrote with his own hand to the different handicraft and trading companies in Vienna, requesting that the Jewish youth might be received as apprentices in the city. Severe laws against gaming were enacted and executed with rigour.

Heavy restrictions were laid upon all the free-masons' societies in Germany, and they were totally suppressed in the Netherlands. He died in February, 1790, and was succeeded by his brother Leopold. The affairs of the two succeeding reigns are inseparable from those of France.

Though the two northern crowns have been for many years past of very little importance to the rest of Europe, they have both experienced some internal changes which we must briefly notice.

Christian VI. of Denmark, succeeded his father Frederic, the enemy of Charles XII. in 1730; and reigned till 1746, with the glorious title of Father to his Country. His successor, Frederic V. imitated his conduct in seeking the welfare of his people, and died in 1766. His present majesty, Christian VII. then ascended the throne. He had married the princess Carolina Matilda of England; but this alliance proved extremely unfortunate, which is generally ascribed to the intrigues of the queen dowager, mother-in-law to the present king.

She is represented as ambitious, artful, and designing; and as one who wished to have set aside the king himself in favour of her own son Frederic.

On the arrival of the young queen, however, she received her with much apparent affection, telling her the faults of her husband, and at the same time promising to assist her on all occasions in reclaiming him from his vicious courses. Thus, under pretence of kindness and friendship, she sowed the seeds of dissension betwixt the royal pair, before the unfortunate princess had the least suspicion of her danger; and while the unthinking queen revealed to the dowager all her secrets, the latter is said to have placed spies about the king to keep him constantly engaged in riot and debauchery, to which he was at any time too much inclined. At last it was contrived to throw a mistress in his way, whom he was advised to keep in his palace. It was impossible that any woman could pass such a piece of conduct unnoticed; however, in this affair, the queen dowager behaved with her usual duplicity. In the absence of the king, she pretended great resentment against him, and even advised the queen not to live with him; but as soon as he returned, when his consort reproached him, though in a gentle manner, with his conduct, she not only took his part, but insisted that it was presumptuous in a queen of Denmark to pretend to direct her husband's conduct. Notwithstanding this incendiary behaviour, the queen was in a short time reconciled to her husband, and

lived on very good terms with him, until she again excited the jealousy of the dowager by assuming to herself the direction of that part of public affairs which the dowager had been accustomed to look upon as her own privilege. For some time it seemed to be difficult for her to form any effectual plan of revenge, as the king had displaced several of her friends who had for some time a share in the administration. Two new favourites, Brandt and Struensee, had now appeared; and as these paid great court to the queen, the dowager took occasion to insinuate, not only that the queen was harbouring improper designs with regard to the government, but that she had an intrigue with Struensee. The new ministers indeed behaved imprudently, in attempting to make a reformation in several of the departments of the state at once, instead of waiting patiently until an opportunity should offer; and in these precipitate schemes they were certainly supported by the queen.

These instances of want of circumspection in the ministers, were represented by the dowager and her party, to be a settled scheme to make an alteration in the government; and a design was even spoken of to supersede the king, as being incapable of governing, to declare the queen regent during the minority of her son, and to make Struensee prime minister.

Thus a very formidable opposition was formed against Brandt and Struensee, and as the latter had made some innovations in the military department, as well as the civil, some of the principal officers, who were the creatures of the dowager, represented him as designing to overthrow the whole system of government. When matters were brought to a proper bearing, it was at last resolved to surprize the king in the middle of the night, and force him instantly to sign an order, which was to be ready prepared, for committing the obnoxious persons to separate prisons, accuse them of high treason in general, and particular with a design to dethrone or poison the king. If this could not be properly authenticated, it was determined to suborn witnesses to confirm the report of a criminal correspondence between the queen and count Struensee. This design was executed on the night of the 16th of January, 1772, when a masked ball was given at the court of Denmark. The queen, after having danced most part of the night with count Struensee, retired to her chamber about two in the morning. About four, the same morning, prince Frederic got up, and went with the queen dowager to the king's bed-chamber, accompanied by general Eichstedt and count Rantzau. Having ordered the king's valet de chambre to awake him, they informed his majesty, that the queen, with count Struensee, his brother, and Brandt, one of the new ministers, were at that moment busy in drawing up an act of renunciation of the crown, which they would immediately after compel him to sign; and therefore there was a necessity for him to give an order for their arrestment. The king is said to have hesitated for some time, and inclined to refuse this scandalous requisition; but at length, through importunity, and, according to some accounts, being even threatened into compliance, he consented to what they required.

Count Rantzau was dispatched, at that untimely hour, into the apartment, and immediately executed the orders of the king. The unfortunate princess was conveyed in

one of the king's coaches to the castle of Cronenburg, together with the infant princess, attended by lady Mostyn, and escorted by a party of dragoons. Struensee and Brandt were seized in their beds and imprisoned, as well as several other members of the new administration, to the number of 18. The queen dowager and her adherents seemed to assume the government entirely into their own hands, and a total change took place in the departments of administration. The prince royal, son of queen Matilda, then in the fifth year of his age, was put under the care of a lady of quality, who was appointed governess under the superintendency of the queen dowager. Struensee and Brandt were put in irons and very severely treated; they underwent long and frequent examinations; and Struensee at last confessed that he had a criminal intercourse with the queen. Both their heads were struck off on the 28th of April; but many of their partisans were set at liberty.

The confession of Struensee is, by many, and indeed with no small degree of probability, supposed to have been extorted by fear of the torture, and to have no foundation in truth; but as no means were used by the court of Britain to clear up the queen's character, the affair most undoubtedly wore a suspicious aspect. At last, however, his Britannic majesty interfered so far as to send a small squadron of ships to convoy the unhappy princess to Germany. Here the city of Zell was appointed for her residence; and in this place she died of a malignant fever, on the 10th of May, 1775, aged 23 years and 10 months.

The inhuman treatment of this princess did not long prove advantageous to the queen dowager and her party. A new revolution took place in April, 1784, when the queen dowager's friends were removed, a new council was formed under the auspices of the prince royal, and no instrument deemed authentic, unless signed by the king, and countersigned by the prince. Since that time the king, who, from the beginning of his administration, showed a great degree of incapacity, has been entirely laid aside from public business, and has no share in the government.

Charles XII. was succeeded by his sister the princess Ulrica Eleonora, wife to the hereditary prince of Hesse. On this occasion, the states took care to make a previous stipulation for the recovery of their liberties, and obliged the princess to sign a paper to this purpose, before entering on the government. The first care was to make a peace with Great Britain, which the late king intended to have invaded. The Swedes then, to prevent their farther losses by the progress of the Russian, the Danish, the Saxon, and other arms, made many great sacrifices to obtain peace from those powers. The French, however, about the year 1730, formed a dangerous party in the kingdom under the name of the Hats; which not only broke the internal quiet of the kingdom, but led it into a ruinous war with Russia, by which the province of Finland was lost.

Their Swedish majesties having no children, it was necessary to settle the succession; especially as the duke of Holstein was descended from the queen's eldest sister, and was, at the same time, the presumptive heir to the empire of Russia. Four competitors appeared; the duke of Holstein Gottorp, prince Frederic of Hesse Cassel, nephew to the king, the prince of Denmark, and the duke of Deux-Ponts. The duke

of Holstein would have carried the election, had he not embraced the Greek religion, that he might mount the throne of Russia. The czarina interposed, and offered to restore all the conquests she had made from Sweden, excepting a small district in Finland, if the Swedes would receive the duke of Holstein's uncle, Adolphus Frederic, bishop of Lubec, as their hereditary prince and successor to their crown. This was agreed to; and a peace was concluded at Abo, under the mediation of his Britannic majesty. This peace was so firmly adhered to by the czarina, that his Danish majesty thought proper to drop all resentment for the indignity done his son. The prince successor married the princess Ulrica, third sister to the king of Prussia; and in 1751, entered into the possession of his new dignity, which proved to him a crown of thorns Through a strange medley of affairs and views of interest, the French had acquired vast influence in all the deliberations of the Swedish senate, who of late have been little better than pensioners to that crown. The intrigues of the senators forced Adolphus to take part in the late war against Prussia: but as that war was disagreeable not only to the people, but also to the king of Sweden, the nation never made so mean an appearance, and upon Russia's making peace with the king of Prussia, the Swedes likewise made their peace, upon the terms of leaving things as they stood at the beginning of the war.

Adolphus died dispirited in 1771, after a turbulent reign of 20 years; and was succeeded by his son Gustavus. The most remarkable transaction in this reign, is the revolution which took place in the government in the year 1772, by which the king, from being the most limited, became one of the most despotic monarchs in Europe. Ever since the death of Charles XII. the whole power of the kingdom had been lodged in the states; and this power they had on all occasions most grievously abused. Gustavus therefore determined either to seize on that power of which they made such a bad use, or perish in the attempt. The revolution was effected in the following manner. On the morning of the 19th of August, 1772, a considerable number of officers as well as other persons known to be attached to the royal cause, had been summoned to attend his majesty. Before ten he was on horseback, and visited the regiment of artillery. As he passed through the streets he was more than usually courteous to all he met, bowing familiarly to the lowest of the people. On the king's return to his palace, the detachment which was to mount guard that day being drawn up together with that which was to be relieved, his majesty retired with the officers into the guard room. He then addressed them with all that eloquence of which he is said to have been a perfect master; and after insinuating to them that his life was in danger, he exposed to them in the strongest colours the wretched state of the kingdom, the shackles in which it was held by means of foreign gold, and the dissensions and troubles arising from the same cause which had distracted the diet during the course of 14 months. He assured them that his only design was to put an end to these disorders; to banish corruption, restore true liberty, and revive the antient lustre of the Swedish name, which had been long tarnished by a venality as notorious as it was disgraceful. Then assuring them in the strongest terms that he disclaimed for ever all absolute power, or what the Swedes call

sovereignty, he concluded with these words: "I am obliged to defend my own liberty and that of the kingdom, against the aristocracy which reigns; will you be faithful to me, as your fore-fathers were to Gustavus Vasa and Gustavus Adolphus? and I will then risk my life for your welfare and that of my country."

The officers, most of them young men, of whose attachment the king had been long secure, who did not thoroughly perhaps see into the nature of the request his majesty had made them, and were allowed no time to reflect upon it, immediately consented to every thing, and took an oath of fidelity to him.

Three only refused. One of these, Frederic Cederstrom, captain of the company of guards, alledged he had already, and very lately, taken an oath to be faithful to the states, and consequently could not take that which his majesty then exacted of him. The king, looking at him sternly, answered, "Think of what you are doing." "I do," replied Cederstrom, "and what I think to-day, I shall think to-morrow; and were I capable of breaking the oath by which I am already bound to the states, I should be likewise capable of breaking that your majesty now requests me to take."

The king then ordered Cederstrom to deliver up his sword, and put him under arrest.

His majesty, however, apprehensive of the impression which the proper and resolute conduct of Cederstrom might make upon the minds of the officers, shortly afterwards softened his tone of voice; and again addressing himself to Cederstrom, told him, that as a proof of the opinion he entertained of him, and the confidence he placed in him, he would return him his sword without insisting upon his taking the oath, and would only desire his attendance that day. Cederstrom continued firm; he answered that his majesty could place no confidence in him that day, and that he begged to be excused from the service.

While the king was shut up with the officers, senator Ralling, to whom the command of the troops in the town had been given two days before, came to the door of the guard-room, and was told that he could not be admitted. The senator insisted upon being present at the distribution of the orders, and sent to the king to desire it; but was answered he must go to the senate, where his majesty would speak to him.

The officers then received their orders from the king; the first of which was, that the two regiments of guards and of artillery should be immediately assembled, and that a detachment of 36 grenadiers should be posted at the doors of the council-chamber to prevent any of the senators from coming out.

But before the orders could be carried into execution, it was necessary that the king should address himself to the soldiers; men wholly unacquainted with his designs, and accustomed to pay obedience only to the orders of the senate, whom they had been taught to hold in the highest reverence.

As his majesty, followed by the officers, was advancing from the guard-room to the parade for this purpose, some of them, more cautious, or perhaps more timid than the rest, became, on a short reflection, apprehensive of the consequences of the measures in which they were engaged; they began to express their fears to the king, that unless some

persons of greater weight and influence than themselves were to take a part in the same cause, he could hardly hope to succeed in his enterprize. The king stopped awhile, and appeared to hesitate. A serjeant of the guards overheard their discourse, and cried aloud, "It shall succeed: Long live Gustavus!" His majesty immediately said, "Then I will venture;" and stepping forward to the soldiers, he addressed them in terms nearly similar to those he had made use of to the officers, and with the same success. They answered him with loud acclamations; one voice only said, No; but it was not attended to.

In the mean time, some of the king's emissaries had spread a report about the town that his majesty was arrested. This drew the populace to the palace in great numbers, where they arrived as his majesty had concluded his harangue to the guards. They testified, by reiterated shouts, their joy at seeing him safe; a joy which promised the happiest conclusion to the business of the day.

The senators were now immediately secured.* They had from the window of the council chamber beheld what was going forward on the parade before the palace; and, at a loss to know the meaning of the shouts they heard, were coming down to inquire into the cause of them, when 30 grenadiers, with their bayonets fixed, informed them, it was his majesty's pleasure they should continue where they were. They began to talk in a high tone, but were answered only by having the door shut and locked upon them.

The moment the secret committee heard that the senate was arrested, they separated themselves, each individual providing for his own safety. The king then mounting his horse, followed by his officers with their swords drawn, a large body of soldiers, and numbers of the populace, went to the other quarters of the town where the soldiers he had ordered to be assembled were posted. He found them all equally willing to support his cause, and to take an oath of fidelity to him. As he passed through the streets, he declared to the people that he only meant to defend them, and save his country; and that if they could not confide in him, he would lay down his sceptre, and surrender up his kingdom. So much was the king beloved, that the people (some of whom even fell down upon their knees) with tears in their eyes, implored his majesty not to abandon them.

The king proceeded in his course, and in less than an hour made himself master of all the military force in Stockholm. In the mean time, the heralds, by proclamation in the several quarters of the city, summoned an assembly of the States for the ensuing morning, and declared all members traitors to their country who should not appear. Thither his majesty repaired in all the pomp of royalty, surrounded by his guards, and holding in his hand the silver sceptre of Gustavus Adolphus. In a very forcible speech he lamented the unhappy state to which the country was reduced by the conduct of a party ready to sacrifice every thing to its ambition, and reproached the states with adapting their actions to the views of foreign courts, from which they received the wages of perfidy. "If any one dare to contradict this, let him rise and speak." Conviction, or fear kept the assembly silent, and the secretary read the new form of government.

which the king submitted to the approbation of the states. It consisted of 57 articles; of which the following five were the chief.

1. The king has the entire power of convoking and dissolving the assembly of states as often as he thinks proper. 2. His majesty alone has the command of the army, fleet, and finances, and the disposal of all offices civil and military. 3. In case of an invasion, or of any pressing necessity, the king may impose taxes, without waiting for the assembly of the states. 4. The diet can deliberate upon no other subjects than those proposed by the king. 5. The king shall not carry on an offensive war without the consent of the states. When all the articles were gone through, the king demanded if the states approved of them, and was answered by a general acclamation. He then dismissed all the senators from their employments, adding that in a few days he would appoint others; and concluded this extraordinary scene by drawing out of his pocket a small book of psalms, from which, after taking off the crown, he gave out Te Deum. All the members very devoutly added their voices to his, and the hall resounded with thanksgivings, which is to be feared never rose to heaven, if sincerity was necessary to their passport.

The power thus obtained, the king employed for the good of his subjects. He took care that the law should be administered with impartiality to the richest noble and the poorest peasant, making a severe example of such judges as were proved to have made justice venal. He gave particular attention and encouragement to commerce, was a liberal and enlightened patron of learning and science, and laboured strenuously to introduce into his kingdom the most valuable improvements in agriculture that had been made in foreign countries.

But while thus active in promoting the arts of peace, he was not inattentive to those of war. The fleet, which he found decayed and feeble, he in a few years restored to a respectable footing, and besides changing the regulations of the navy, he raised a new corps of sailors, and formed them to the service by continual exercise. The army, which, as well as the navy, had been neglected during the aristocracy, was next to be reformed. The king began by giving cloaks, tents, and new arms to all the regiments. Afterwards, under the direction of field marshal Count de Hesseinstein, a new exercise was introduced, and several camps were formed, in which the soldiery were manœuvred by the king himself. The sale of military offices, which had been permitted for many years, were entirely suppressed; and the king provided not only for the re-establishment of discipline and good order in the army, but for the future welfare of the individuals which composed it. These warlike preparations were necessary to a plan which he had formed for entirely abolishing the power of the aristocracy, and freeing Sweden from the factions which had long been formed in it by the court of St. Petersburg. The changes which he had introduced into the constitution were very inimical to the intrigues of that court; and the Russian ambassador exerted himself openly to bring about a rupture between the king and the discontented nobles. Gustavus ordered him to quit the kingdom in eight days, and immediately prepared for war with Russia. To this apparently rash enterprize he was incited by the Ottoman Porte, at that time

unable to oppose the armies of the two empires: and his own ambition, together with the internal state of his kingdom, powerfully concurred to make him lend every assistance to his antient ally. It is needless for us to enter into a detail of the particulars of that war; which, as well as the astonishing activity and military skill displayed by the Swedish monarch, are fresh in the memory of all our readers. Suffice it to say, that neither Gustavus Adolphus nor Charles XII. gave greater proofs of undaunted courage, and military conduct, in their long and bloody wars, than were given by Gustavus III. from the end of the year 1787 to 1790, when peace was restored between the courts of St. Petersburgh and Stockholm. Had his army remained faithful, it seems in a high degree probable, that he would have penetrated to the metropolis of the Russian empire in the first campaign; and when he was deserted by that army, and his councils distracted by new hostilities commencing against him by the Danes, the vigour and resources of his mind never forsook him. When the court of Copenhagen was compelled, by the means of England and Prussia, to withdraw his troops from the territories of Sweden, the king attacked Russia with such vigour both by sea and land, displayed such address in retrieving his affairs when apparently reduced to the last extremity, and renewed his attacks with such pertinacious courage, that the empress lowered the haughtiness of her tone, and was glad to treat with Gustavus as an equal and independent sovereign.

The king of Sweden was now at liberty to cherish again the arts of peace, and to humble the haughty spirit of the nobles. For his attempting to deprive those men of that power which they had for many years employed against their country, he has been held up to the world as a despot who trampled on the liberties of his subjects; and as a man without sincerity or patriotism; and, in one word, as a perjured tyrant, who overthrew the constitution which he had sworn to maintain. That he was not troubled with a scrupulous conscience, when so artfully conducting the revolution of 1772, must be acknowledged; nor can it be denied that in his treaties with other powers he sometimes endeavoured to over-reach them; but if the necessities of state could in any case be an apology for falsehood, they would sufficiently apologize for the duplicity of Gustavus. He was engaged in the arduous enterprize of freeing his subjects from an aristocratic tyranny, supported by a foreign power, the most formidable in the north; he had been forced into a war with that power; and, as there is reason to believe, promised assistance which he never received; and it cannot excite wonder nor great indignation, that, as soon as he could make an honourable peace, he embraced the opportunity without paying much regard to the interests of an alliance, which tamely looked on while he was struggling with difficulties apparently unsurmountable. That the revolution which he effected in his own country was calculated to promote the general good of the people, is unquestionable; and to gain such an object he might perhaps restore the crown to its antient splendour, without bringing upon his government the odious epithet of despotism.

The nobles, however, continued discontented, and a conspiracy was planned against Gustavus, under his own roof. He had entered into the alliance that was formed against

the revolutionary government of France; and to raise an army which he was to lead in person to co-operate with the emperor and the king of Prussia, he was obliged to negotiate large loans, and to impose upon his subjects heavy taxes. The nobles took advantage of that circumstance to prejudice the minds of many of the people against the sovereign who had laboured so long for their real good. On the 16th of March, 1792, he received an anonymous letter, warning him of his immediate danger from a plot that was laid to take away his life, requesting him to remain at home, and avoid balls for a year; and assuring him that if he should go to the masquerade for which he was preparing, he would be assassinated that very night. The king read the note with contempt, and at a late hour entered the ball room. After some time he sat down in a box with the count D'Essen, and observed that he was not deceived in his contempt for the letter, since had there been any design against his life, no time could be more favourable than that moment. He then mingled, without apprehension, among the crowd, and just as he was preparing to retire in company with the Prussian ambassador, he was surrounded by several persons in masks, one of whom fired a pistol at the back of the king, and lodged the contents in his body. A scene of dreadful confusion immediately ensued. The conspirators, amidst the general tumult and alarm, had time to retire to other parts of the room; but one of them had previously dropped his pistol and a dagger close by the wounded king. A general order was given to all the company to unmask, and the doors were immediately closed; but no person appeared with any particular distinguishing marks of guilt. The king was immediately conveyed to his apartments; and the surgeon, after extracting a ball and some slugs, gave favourable hopes of his majesty's recovery.

Suspicions immediately fell upon such of the nobles as had been notorious for the opposition to the measures of the court. The anonymous letter was traced up to colonel Liljehorn, major in the king's guards, and he was immediately apprehended. But the most successful clue that seemed to offer was in consequence of the weapons which had fallen from the assassin. An order was issued, directing all the armourers, gunsmiths, and cutlers in Stockholm, to give every information in their power to the officers of justice concerning the weapons. A gunsmith, who had repaired the pistols, readily recognised them to be the same which he had repaired some time since for a nobleman of the name of Ankarstrom, a captain in the army: and the cutler who had made the dagger referred at once to the same person.

The king languished from the 17th to the 29th of March. At the first, the reports of his medical attendants were favourable; but on the 28th a mortification was found to have taken place, which terminated his existence in a few hours. On opening his body, a square piece of lead and two rusty nails were found unextracted within his ribs.

During his illness, and particularly after he was made acquainted with the certainty of his approaching dissolution, Gustavus continued to display that unshaken courage which he had manifested on every occasion during his life. A few hours before his decease, he made some alterations in the arrangement of public affairs. He had before by his will appointed a council of regency; but convinced by recent experience, how little

he could depend upon the attachment of his nobles, and being also aware of the necessity of a strong government in difficult times, he appointed his brother, the duke of Sudermania, sole regent, till his son, who was then about 14, shall have attained the age of 18 years. His last words were a declaration of pardon to the conspirators against his life. The actual murderer alone was excepted; and he was excepted only at the strong instance of the regent and those who surrounded his majesty in his dying moments. Immediately on the death of the king, the young prince was proclaimed by the title of Gustavus IV.

Ankarstrom was no sooner apprehended, than he confessed, with an air of triumph, that he was the person "who had endeavoured to liberate his country from a monster and a tyrant." Suspicions at the same time fell on counts Horn and Ribbing, baron Pechlin, baron Ehresvard, baron Hartsmandorf, Von Engerstrom, the royal secretary, and others; and these suspicions were confirmed by the confession of Ankarstrom. After a fair and ample trial, this man was condemned to be publicly and severely whipped on three successive days, his right hand and his head to be cut off, and his body impaled; which sentence he suffered not till the 17th of May, long after the death of the king. His property was given to his children, who, however, were compelled to change their names.

The counts Horn and Ribbing were condemned to lose their right hands, and to be decapitated. Colonel Liljehorn and lieutenant Ehrenjwerd were also to be beheaded. All these conspirators were degraded from the rank of nobles, and their property declared to be confiscated. Major Hartmansdorf was to forfeit his rank in the army, and to be imprisoned for one year. Engerstrom was to suffer perpetual imprisonment, and baron Pechlin and secretary Lillestrahle to be imprisoned during pleasure. Four others, accused of being concerned in the conspiracy, were pardoned, and some were acquitted.

END OF VOL. I.

Bungay: Printed by C. Brightly and T. Kinnersley.